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CLOSE-UPS AND LONG-SHOTS

A Behind-the-scene Picture of the Unique Office Problems of the Walt Disney Productions

By O. V. MELTON

IN dollar volume, number of employees, fame, magnitude and complexity of operation, quantity and quality of product, WALT DISNEY PRODUCTIONS has no comparison. As Shakespeare has written, "suit the action to the word and the word to the action". So be it! The accounting department of Walt Disney Productions has been developed to meet the action. Our customers are not local, state-wide, nor national. They are to be found in every country of the world. Such vastness of operation offers not only to the methods man, the accountant, but to anyone associated with this fascinating business, a wide open field. Accountants at Disneys are as familiar with foreign exchange rates of the various countries of the world as is the average accountant with the everyday trial balance.

It would be impossible, in the space available, to list the functions that are unique to the average accounting department but are every day entries in the books of Walt Disney Productions.

I mention one such item at this point, as a report has just been placed on my desk covering one month's operation of one of our foreign representatives on the continent. In this report our representative reported costs incurred in France, Germany, Denmark, Sweden, Norway, Holland and Belgium. Mind you, this represents one representative for one month. His reports are prepared in the currency of the various countries. It would be interesting indeed for the average accountant to finger through the accompanying bills which, needless to say, are in the foreign currency concerned—bills which cover hotel, restaurant, transportation, and almost every conceivable type of cost that is ordinarily reflected in the cost of preparing the foreign version of Hollywood's domestic product. You might ask, "How does all of this particularly concern the accounting department?" To answer this I would say the accountant must have at his finger tips current conversion rates of each country reported in order that he may properly convert and record the costs correctly in the books of Walt Disney Productions. He must be able to interpret expense reports, and to interpret them he must have at least a small knowledge of the languages of these foreign countries. There are other problems due to the fact that the monies utilized by our representative and subsequently reflected in our records were advanced by our distributor who maintains offices in most of the countries open to the American motion picture. This, too, must be reflected in our records.

Cost of Operating the Accounting Department Classified under Two Categories

However, to conform with the accepted scheme of writing reports, I suppose it is necessary to comment in general about something in specific as it applies to this unique organization.

In our financial statement we classify the cost of operating the accounting department under two categories—

I. General Accounting Records

II. Cost Accounting Records
   a. Time Office Section
   b. Auditing Section
   c. Tabulating Section

Under General Accounting Records I should add we could not do without the word "General". Here we maintain not only those records common to all accounting departments but foreign department records and enterprise department records, both operations being world wide. Foreign operations consist of:

I. Preparation of Foreign Versions

II. Recording of Income and Costs Applicable to the Distribution of our Motion Pictures in Foreign Territories

III. The Licensing of Manufacturers who use our Copyrighted Characters
   a. Recording of Comic Strip Activities
   b. Licensing of Publishers to Publish our Books

We have recently organized a new company, the WALT DISNEY MUSIC COMPANY. Basically this

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Mr. Melton, Office Manager of Walt Disney Productions, presents an exposition of a unique organization. He is a member of the Los Angeles Chapter of SPAA.

company was set up to distribute and exploit the songs from our motion pictures. It will, in due course, require the same organizational set-up as the motion picture and related phase of our operations. In less than a year we have extended our operations to several foreign countries.

Statements and Records Reflect Scope of Activities

I have purposely avoided in this report the one, two, three procedure for recording entries into our records. My comments are general covering those unique activities of our company—activities that *are* unique when considering the size, dollar volume and magnitude of operation of the company, bearing in mind the fact that these activities are recorded and reflected in records and statements maintained and prepared by the accounting department.

Reference has been made to potential accounting problems related to the preparation of foreign versions. Generally speaking, all foreign versions prepared are done so in foreign countries.

Recording of Income and Costs are Applicable to the Distribution of Our Motion Pictures in Foreign Territories

Our distributor, RKO Radio Pictures, Inc. (RKO) handles the actual physical distribution of our motion pictures. Each week a Summary of Film Earnings (SFE) statement is submitted by RKO covering the domestic activities of each of our pictures, both feature and short subject. Once a month, in addition to the SFE, a Summary of Foreign Income and Cost (SFIC) is submitted by country, by picture, both feature and short subject. Further, an Analysis of Billings and Costs (ABC) is submitted by RKO detailing data listed on SFIC. The data submitted on the SFIC sheets is recapitulated on the SFE. In order that one may reflect in his own mind the voluminous detail, there is also submitted an individual deal sheet covering each theatre to which our distributor sells our picture. More statistics—a picture will play from 10,000 to 15,000 "situations" within the United States. When one begins adding up the facts that RKO has distributed some 15 feature length pictures and 12 series of shorts—each series containing 18 individual pictures—then, again, one will begin to realize the detail necessary to record and reflect this one phase of our operations.

The recording of this detail by country, by picture, is accomplished by the use of National Cash Register Machines.

The Licensing of Manufacturers that Use Our Copyrighted Characters

Our published financial statement reflects that approximately 20% of our revenue is derived from enterprise functions. Enterprise functions are world wide, are operated wholly by Walt Disney Productions and are in no way related with the operations of our motion picture distributor, RKO. We maintain subsidiary companies in the larger cities of the world and agencies in those smaller cities and countries open to American business. Naturally, it is the responsibility of the accounting department to record and reflect these activities. Detailed records by country are maintained. The information or reports from which we record these activities are submitted by the subsidiary companies via a monthly report and yearly statement. Each subsidiary company operates as an entity under the direct supervision of the head office, charging and crediting our inter-company account in line with the contractual agreement between the subsidiary and Walt Disney Productions. In those countries where agencies are maintained, our agency forwards the actual reports prepared and submitted by the individual licensee in his particular territory. These reports are used for preparing entries for the records of Walt Disney Productions. Licensees within the United States and Canada submit monthly reports directly to Walt Disney Productions.

Recording of Comic Strip Activities Maintained by Ledger

Our records reflecting income and cost in connection with the comic strip operation are less complex. Our distributor in this case is King Features Syndicate. Each month King Features submits a report that details the information on a weekly basis by individual newspapers regardless of what city in the world the strip may be utilized. We simply maintain a ledger that reflects such income.

Licensing of Publishers to Publish Our Books Recorded by Classification

Here, again, our problem is not too complex. Western Printing and Lithographing Company and their subsidiaries are the principal printers and publishers of our book material. In foreign countries we license individual publishers through our subsidiary company or agency. There was a time when our accounting department records reflected the number of copies sold and the revenue received covering each publication. However, due to the volume of past and present publications, it has become necessary to classify our publications and record in our records by classification instead of by individual book.

International Business Machines Play an Important Role

Cost records are integrated with and are controlled by the general records of the corporation. Procedurewise, this conforms with the general accepted prac-

tice. The physical recording of detailed charges to accounts included within the cost system is accomplished by the use of International Business Machines. Primarily, our cost accounting is designed to perform the following functions:

I. Payroll and Labor Distribution.
II. Audit of Voucher Distribution
III. Allocation of Overhead Charges
IV. Preparation and Audit of Cost Statement

Comments are limited to Item I—Payroll and Labor Distribution.

Pre-Punched Time Cards Accelerate Payroll and Labor Distribution

The initial record of time charges is provided by the employee acting as his own time keeper, listing all work performed on a weekly distribution card provided the employee for this purpose. This is an I.B.M. card which provides lines for listing time spent on each task performed with columns for designating job, story, or picture number, sequence and scene number, cost or overhead account number and day of week this time was performed. In addition to the weekly distribution card, the employee is required to punch in and out each day by the use of a weekly clock card. Both weekly clock card and weekly distribution card are pre-punched I.B.M. cards containing such information as date, department, employee number, name of employee, hourly rate of pay, union classification and clock number. This pre-punched information was reproduced from a master file by the tabulating department into the cards before they were issued for use by studio employees. As each employee clocks in and out each day the time is electrically recorded on the employee clock card.

From the information electrically recorded on the weekly clock card the time office section indicates in ink on the weekly clock card the actual hours worked each day by the employee. From this information the time office section then prepares an hourly control for the weekly payroll. The two sets of cards – weekly clock cards and weekly distribution cards are then forwarded to the auditing section.

Before moving on to the auditing section it might be of interest to note that the time office section is charged with the responsibility of paying according to some 45 Union and Guild contracts which are presently in effect. Generally speaking, there are variations in each of these agreements. To point out an interesting problem representative of the complexities involved in correctly computing clocked hours—the Time Office Section must calculate x number of hours at x rate per hour when x employee is working on the lot, a different rate when working on location and another rate while enroute to location depending upon which means of transportation is supplied the employee and the time of day he is traveling. Penalty or premium rates must be considered for the time of day worked, when meals are not allowed at specified times, when excessive hours have been worked, or when the employee is called back to work within eight hours of his dismissal time. The employees work schedule may also call for a different rate of pay for every tenth of an hour worked beyond forty hours per week. And, of course, the Wage and Hour Law has to be considered in these calculations when paying overtime.

When the two sets of cards are received by the auditing department the account distribution is immediately verified. Each card is cross footed, totaled and reconciled to the weekly clock card. After auditing and reconciling the two sets of cards they are then ready for the tabulating section.

At this point the two sets of cards follow different routes—the weekly clock card becoming the basis for preparing the payroll for the week and the weekly distribution card the basis for distributing the labor for the week.

The weekly clock card, together with associated cards utilized in connection with the preparation of the payroll, is processed, arriving at the weekly earnings summary card. This summary card is the key card for preparing the Payroll Register and Checks.

To complete the distribution of labor it is necessary to prepare a weekly *detail* distribution card for each item noted by the employee on his weekly distribution card and subsequently approved by the auditing section. Other pre-punched information already referred to is X gang punched into the weekly *detail* distribution card. The weekly *detail* distribution cards are then ready for the automatic (602A) multiplier and subsequent cost reports.

Records by Song Developed for Walt Disney Music Company

Reference has been made to Walt Disney Productions' recently organized subsidiary, WALT DISNEY MUSIC COMPANY. Of interest to the methods man would be the approach made in developing procedures and accounting records to reflect the operation of the new company. There was one feature of this new company quite similar to Walt Disney Productions—that was, its potential world-wide operations.

Naturally, our first step was to learn as much as possible, in a minimum of time, about music company operation at least from the accountant's point of view. To supplement management's over-all function in setting up a new company, arrangements were made for two of our key accountants to spend some time reviewing operations of a local music publishing company. All records, not of a confidential nature, were made available and general discussions were held.

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TAPPING THE RESERVOIR OF EMPLOYEES' EXPERIENCE

Systems Specialists Are Divided on Advisability of Suggestion Programs—Who Is at Fault when They Fail?

By DONALD TITUS

MOST companies fail to recognize that far more knowledge and experience rest in the combined brains of the people actually doing the work than could possibly exist in the minds of the management. The organization which is successful in being able to tap this reservoir of experience not only has a valuable asset with which to cut costs and increase production, but has automatically achieved a sense of participation among its employees.

Some years ago, the National Industrial Conference Board made a survey of suggestion programs, their methods of operation and the results obtained. It may be interesting to list some of those that failed and the reasons given:

1. "We received many ideas, of course, that were impractical and also some very good ideas that rather reflected upon the foremen and superintendent, and this presented a very delicate matter to handle to the satisfaction of all parties concerned."

2. "The employees who have ideas come forward with them and submit them to their immediate superior or to the proper official interested in the matter, without the necessity of going through the suggestion box."

3. "Some employees considered the suggestion box as an outlet for their sense of humor; others considered it an outlet for their spleen; while others, although sincere, made such grotesque suggestions that it was felt very little was being accomplished under the plan."

4. "It was found that the contents of the boxes more often revealed anonymous criticism of supervision and management . . ."

5. "The time required to pacify and console those who did not receive awards was too great to offset the value of the suggestions accepted."

6. "It was often difficult to determine or to explain why one suggestion was superior to another, hence the decisions often appeared arbitrary. Two or three employees became the habitual prize winners . . ."

7. "In a few cases the Committee made awards for suggestions that were of little value, in an effort to stimulate interest, but in some of these instances the employee had an exaggerated idea of the value of the suggestion and was somewhat disturbed because the amount of the award was so small."

8. "Our plan was discontinued about twelve years ago, as it was felt that interest had waned and the caliber of the suggestions was lowered to a point where it did not seem advisable to continue it. Moreover, it seemed to create some ill feeling, particularly as it was felt that the heads of departments were making suggestions and receiving credits and awards which were wholly or in part suggestions which had been previously made to them by one of their subordinates."

9. "The usual gist of suggestions was that 'so and so was being paid too much for what they did and that someone else would be able to handle the work in connection with their own'. It also had a humorous strain at times which would not bear repeating in a communication of this kind."

10. "The result of giving an award for a suggestion that does not actually save money for the Company does not create a very good impression with the rest of the men who are smart enough to know that the suggestion is something that has been in effect or previously made."

11. "It seems that the type of suggestions ran in cycles. If one of the employees received an award for any suggestion on any line we would immediately be flooded with suggestions of a similar nature."

12. "Our experience with this type of thing has not been favorable due to several factors, the chief one being that quite often after rewarding a contributor for a suggestion we find that the suggestion did not originate with him."

13. "We had a few constructive suggestions, but our experience showed that most of the men would either consult with one another and all make the same suggestion, or else, as was the case, most of the time they would consult with their foreman and ask him what to write, and this, of course, was not productive of anything new."

Mr. TITUS attended Stamford University and has also studied at New York University, American Institute of Banking, and Practicing Law Institute. He is procedure analyst for the Research Institute of America and has had 15 years experience in systems work. He is a member of the New York City Chapter No. 1 and serves on the National Editorial Board as business manager.

14. "The plan failed because the superintendent connected with this mill at that time made it his business to kill it . . ."

Major Cause of Failure Charged to Management

Most of the reasons given fall into a pattern. They fail to recognize that the fault in not being able to operate a successful suggestion program lies with management. In some cases the companies refused to believe that criticism of supervision and management might have been justified. In others, the companies apparently considered that the only value a suggestion program could have was the tangible cash value. The possibility that morale might improve and a feeling of participation might result was not taken into consideration. Some companies are under the impression that anyone having a suggestion will make it anyway, but successful programs have shown that some of the best suggestions come from those who are normally too shy or retiring to express themselves without official encouragement.

The intangible values gained from a suggestion plan are greater than the apparent money savings. The added interest which employees take in what is going on is paramount among the intangibles. Next comes, perhaps, the great safety valve it offers to employees bursting with ideas that certain practices are wrong. In making suggestions, they often learn the reasons for the procedures which, on the face of things, seemed so wrong.

An On-the-level Approach From Topside to Employees

What most programs seem to lack is the technique of convincing the employees that management values their ideas—that the suggestion program, as far as ideas are concerned, places them on an equal basis with management—the answers and the posters and the suggestion blanks must all indicate this in such a way that the employees are going to believe it. The greatest single reason an individual has for joining a union is purely psychological—his desire to be heard—to be part of a team. How many members of management honestly think of their employees as working *with* them, rather than *for* them?

Systematic recording of employee opinion has indicated that one of the most important desires of the average employee is to have his employer give careful consideration to his ideas regarding possible changes in operations or working conditions. There are a great many rules that are followed in suggestion programs and sometimes these rules make a great deal of difference in the success of the program.

Generally speaking, it is not a good idea to class people—to put salesmen in one category, the executives in another, office employees, foremen, factory workers in still other categories. We do not know the hopes and aspirations of each individual. We can only guess at them and often our guesses are a long way from the truth. As soon as a company's staff is divided in a suggestion program, the implication goes along with this division that a line has been drawn between two types of work, that it is not good policy to cross that line. Here we give the office employee who wants to be a factory foreman, the factory foreman who wants to be a salesman, a psychological kick in the pants.

Is Best Idea President's Or the Mail Boy's?

It is quite possible that the president might be able to give the mail boy an idea that would speed up his work, but it is also quite possible that the mail boy might be able to give the president an idea that would speed up *his* work. Under normal circumstances both would be too embarrassed to offer such ideas. Why not give them both the chance?

This does not mean to say that eligibility for awards should be the same. Those with a supervisory capacity should never be eligible for an award for a suggestion made which directly affects the work of those they supervise.

The question of awards is a difficult one, since it is human nature for a suggestor to over-value his own suggestion. Some companies, however, have made the mistake of awarding prizes so insignificant that the employee considers his time ill-spent. If a company's benefits from the suggestions will be for the most part tangible ones, a small percentage of the savings may be awarded, but a careful explanation as to how the savings were figured and why a particular percentage has been arrived at should be given.

Where intangible benefits are likely to outweigh tangible ones and it is impossible to place a value on them, a monthly drawing for war bonds can be arranged—those eligible for awards being assigned numbers. Recognition, however, is most important —the proper kind of a letter from the top executive (not a form letter), a certificate of merit, a record in the personnel file, additional consideration for a raise in pay, or for promotion—these are more valuable to an individual, if done sincerely, than monetary awards.

Ten Rules to Follow For a Successful Program

Here, in brief, are ten general rules to follow for a successful suggestion program:

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GAINING ACCEPTANCE OF NEW IDEAS

A Case Presentation Covering the Improvement of Administration in the American Enka Corporation

(A paper presented at the Third Annual National Systems Meeting)

By J. B. JOYNT

HOW to gain acceptance of new ideas is a $64.00 question in American business today. It applies not only to the acceptance of new ideas by management, but it applies with equal emphasis to the acceptance of the ideas of management. Before we attempt to answer this question, let's ask ourselves two simples ones.

1. Acceptance of what?
2. Acceptance of whom?

Acceptance is more than placing an approval stamp on a new idea. It includes acceptance of the fundamental principles and the basic concepts which underlie the new idea. Whether the idea involves a new plan of organization, a new program, or a new procedure, is not too significant. Acceptance always consists of two basic considerations:

First—Understanding. There must be a clear understanding as to what the new idea involves. If it is a problem, this includes a recognition of the causes and implications, and an understanding of the solution. Since we are all skeptical of the things with which we are not familiar, understanding becomes a key factor in acceptance.

Second—Responsibility. There must be a willingness to assume responsibility. This includes responsibility for dealing with the technical, as well as the human relations factors. Acceptance of a new idea without acceptance of related responsibilities is merely a "yes man's" concurrence. Acceptance therefore must include assumption of responsibility, without reservation.

Acceptance by Whom?

The extent to which the entire organization participates in carrying out the new ideas is the yardstick by which the effectiveness of our acceptance goal can be measured. Let's examine the necessity of acceptance in an organization from the top down.

The President and The Board of Directors. No program for the improvement of administration will be successful without the enthusiastic support of the President. If properly administered, much needed backing and support throughout the Company is virtually assured when such a program is initiated by the President in the first place.

It is desirable that new programs which are of major significance have the support of the Board of Directors. It is the responsibility of the President to keep the Board informed as to major plans and accomplishments. Their acceptance is, in effect, approval of his basic philosophy of management and leadership qualities.

After all, Presidents themselves are supposed to do some original thinking and should not be too dependent on their staffs for the initiating of new programs. To improve administration, we must have competent personnel; we must be properly organized; and, we must do good work! But, the extent to which results are accomplished is frequently in direct proportion to the backing and support of the top man. The influence of the Chief Executive is a major factor in the adoption of new ideas in any organization.

Key Staff and Line Officials. At this level acceptance becomes more tangible. Here is the transition from acceptance of principles to the acceptance of specific proposals. At this point, acceptance is placed directly on the doorstep of departmental management. This group not only represents a major part of management but carries out heavy management responsibilities. Acceptance by this group is vital.

First-Line Supervisors and Employees. If the people who are responsible for doing a job are not in sympathy with it, there will be discontent, low morale, and ultimately failure. First-line supervisors are rightfully influenced by the individuals responsible for day-to-day operations. There is no better test as to the soundness of a new idea than an enthusiastic endorsement by the first-line supervisors and their employees.

Mr. JOYNT has had a wide business career including teaching and seventeen years of field experience in management techniques with Municipal and Federal governments, the U.S. Army and various manufacturing organizations. At the present time he is manager of the Administrative Engineering Department in American Enka Corporation and is responsible for planning, organizing, and directing management improvement programs for rayon yarn manufacturers encompassing five thousand employees in plants in North Carolina and Tennessee. He is a lecturer at New York University and is the author of a number of papers and articles in the field of management.

Our Acceptance Goal. Our acceptance goal should be company-wide in scope. It should apply to all organizational levels, all organizational units, both line and staff units, and to all of our people.

Sharpening the Tools of Administration

The American Enka Corporation was established May 2, 1928. It makes high quality rayon yarn. The Company has Executive and Sales Offices in New York City, three District Sales Offices and two large plants. One plant, with 3500 employees, is at Enka, North Carolina, near Asheville. The other, with 1000 employees, is at Lowland, Tennessee. Our corporate offices, except for the Sales Division and the Office of the President, are also located at Enka, North Carolina.

Our Company's success is a definite tribute to its management. But like other well-managed organizations, it is constantly seeking new ways to broaden its management perspective and improve its administrative and technical operations. One additional step in that direction was to establish a year ago an Administrative Engineering Department as a part of the Office of the President. This Department is responsible to the President for planning and coordinating the following programs for the improvement of administration throughout the Company:

1. Organization Planning
2. Program and Project Planning
3. Development of Policy and Procedure Manuals
4. Work Simplification and Work Measurement
5. Planning and Organizing Related Programs, such as Forms Control, Records Retirement, etc.
6. Executive Development
7. Management Audits

Management's major concern is getting its job done well, and finding ways of doing it better and at a lower cost. To accomplish this, requires organization, planning, policy making, procedures development, controls, coordination, leadership, human relations and development of personnel. These things spell MANAGEMENT.

One overall objective of Enka is to further strengthen management at all organization levels. This objective has been translated into five basic Company programs in which all departments participate.

1. Improving the Company Organization Structure
2. Introducing Additional Modern Business and Industrial Practices
3. Analyzing Business Conditions
4. Perfecting Plans, Policies, Procedures and Reports
5. Developing and Training Executive and Supervisory Personnel

At Enka, systems and procedures are an integral part of Company management. When we talk about improvement of systems and procedures, we are discussing, in certain departments, the very heart of management's job. It is when management is anxious to find ways of doing its administrative job better that the systems analyst comes into the picture. But his job is to help departmental management and not to take over.

Organizing and Planning for Acceptance

If we accept these concepts as to what management's job is, then our first step is to organize and plan a proper approach to carry out our major objectives on this basis.

Our program for the improvement of administration and management is carried out on a decentralized basis. Our department heads are charged with the responsibility of improving the organization of their own departments, perfecting their own plans and analyzing their own policies and procedures. The Administrative Engineering Department coordinates the program and furnishes the department heads technical assistance, but purely on a staff service basis.

Under this approach, certain of our key officials, both line and staff, with heavy administrative responsibilities, have special assistants who conduct studies involving organization, systems, etc., covering their own functions. For the most part, they function on a part-time basis, but they are available to participate on specific projects affecting their departments, as required. In other departments, this responsibility rests with department managers and supervisors.

In some respects it would be easier to have a strong group of trained analysts working under one central head. This would centralize such skills, as well as responsibility for results. But we regard the decentralized approach as an important factor in gaining operating management's acceptance of new ideas. When department heads are charged with full responsibility for the efficient management of their departments, and at the same time the most modern tools of administration are made available to them, they will be calling for specialized staff assistance, which is reverse of trying to sell them new ideas.

Management involves both technical and managerial skills. The decentralized approach may test our technical skills, but this problem has not been too

difficult to solve. It involves two things:

1. Selection. Careful selection of individuals to carry out this work. We have found it desirable to select young Industrial Engineers with a few years' experience with the Company. More than anything else we look for individuals with potential, who have the respect of their own organizational units. Confidence in their ability and judgment by their line supervisors is essential.
2. Training. Our training in management covers systems and procedures analysis. It includes classroom and on-the-job training. Although our people attend university classes, as well as seminars and conferences of management and professional associations, we believe it desirable to train them in the Company's management philosophy and administrative techniques.

Since the people who carry out this work must be accepted as individuals, in order to do effective work, proper selection and training is vital. It may take a little longer to accomplish our objectives under this decentralized approach, but our goal is to build a stronger organization for the future.

One of the first steps in planning the administrative engineering program is to establish an Administrative Engineering Planning Committee of seven staff department heads. This committee is responsible for developing plans to cover the improvement of administrative functions throughout the Company, including determination as to the general priority and approach in carrying out major programs. It does not study or review individual procedures. This is the responsibility of the department heads concerned.

Selection of these particular department heads was made because:

1. They carry heavy administrative and procedural responsibilities.
2. They exercise staff supervision over nearly all the functions in our plants where procedures are an important part of the job.
3. There is a close procedural relationship between the various departments they supervise.

There are several advantages inherent in such a committee. First, key department heads participate in the planning aspects of the program. Second, it results in greater recognition of the value of administrative functions. Finally, it creates "procedure consciousness" at the top organization levels. Having a sympathetic ear at this organization level is a factor in gaining acceptance to new administrative ideas throughout the Company.

In carrying out a company-wide program for improvement of administration, the priority of each major phase must be determined. Improvement programs are all closely related. They cannot be entirely separated. In general, the order of priority is as follows:

1. Analysis and evaluation of the Company's organization structure
2. Development of a uniform approach to Program and Project Planning and Progress Reporting
3. Analysis, improvement and formalization of the Company's policies and procedures
4. Application of work simplification and work measurement to clerical and administrative functions
5. Management Audits

So far, at Enka, we have completed the organization phase. Our efforts are now being devoted to the development and improvement of annual work programs and progress reports for all departments, and to the improvement of Company policy and procedure. Work simplification and work measurement will then be undertaken. Management audits will be the final step. This discussion, however, will be limited to organization planning and our program covering the analysis of Company policy and procedures.

Company-Wide Participation

The organization structure of the entire Company was analyzed as a single project. The basic objective of this project was organization improvement, with the end product being a Company Organization Manual.

The first step in the project was for all supervisory personnel from the President to the foremen in the plants to prepare statements covering their own authority and responsibilities. But before they were asked to prepare these statements, a project plan was developed. The plan explained the purpose of the study, who would participate, the objectives, and the use of the Company Organization Manual. The President of the Company set an excellent example by preparing his own statement and presenting it to the Board of Directors. In this way, he not only conveyed to the Board his concept of the President's job, but gained their acceptance, in principle, of the entire program.

These statements of authority and responsibility formed the basis for the organization analysis and changes which followed. In general, they set forth three things:

1. The major functions of each key official or supervisor.
2. His specific responsibilities and authority.
3. His corporate relationships, including to whom he reported, who reported to him, his significant internal relationships with other departments, and finally, his relationships with outside organizations.

(Continued on page 15)

CO-ORDINATION OF PAYROLL SYSTEMS WITH MANAGEMENT PLANNING

Payroll Job Costs Were Reduced 15% After Procedures Analysis

(A paper presented at the Third Annual National Systems Meeting)

By W. F. LUKE

IT is a long, long time indeed since man was created, or came down from the trees, depending upon the point of view. And it was not long after that event, as time goes, that some of our forebears started working for others. At that point we probably had the beginnings of payrolls. However, as long as the value of work performed was either unrecognized or recognized only in such terms as subsistence, quarters, etc. or paid for in kind, the payrolls must have been quite simple. Simple or not, I think we can agree payrolls are an ancient matter, so ancient in fact one would think we should know all about them, but, fortunately, in one sense at least, we have a lot to learn or else there certainly would be a host of unemployed Systems and Procedures men and this meeting have little, if any, purpose.

To establish the importance of our basic approach; i.e., the coordination of payroll systems work with management planning, I plan to discuss just three of many reasons that could be developed. There are many others, no doubt, but these will do for our case.

First, there is the necessity of tieing in payroll routines with other routines. I am sure a Payroll Systems and Procedures man is a human being, although at times I have my doubts. At any rate, like most Methods people, payroll men tend to become so engrossed in their specialty they lose sight entirely of their specialty's relation to other routines; yet of all business methods subjects none is more uniquely interrelated with hiring and firing, ordering and manufacturing, costing and accounting, internal audits, etc. than is payroll. This situation, I believe you will appreciate, begs the question of "How to Organize for Payroll Systems Work", which is, you also will sense, a part of the overall planning management must do.

Some companies rely upon the payroll organizations themselves to do the systems and procedures work. Others utilize the fine capabilities of the management consultant firms. Still others establish staff organizations solely for systems and procedures work. This latter approach is used in Western Electric where we have several methods and development organizations established for the purpose of handling payroll systems work. These units are staffed with personnel skilled in payroll work, to be sure, but in addition these people, because of systematic rotational assignments for training purposes have considerable knowledge of other systems work, which is of untold value when considering the effect of proposed payroll changes upon other company routines. Further, this trained personnel assigned to payroll systems work is linked directly with all other systems work through common supervisory levels.

After World War II when some of our very largest payroll system investigation cases got under way, Western also found it extremely helpful to organize a company-wide "Payroll Steering Committee" and numerous sub-committees thereof consisting of representatives from all divisions of the company for the purpose of coordinating the investigations undertaken at the various locations. This assured system-wide consideration of helpful ideas and common problems, and also provided courts of appeal on matters of company policy which were contributing to excess costs of payroll handling. That is the formal organization; in addition there is the informal organization which is in essence the maintenance of the closest liaison with the organizations which will do the work. Thus, we can be assured, except under the most unusual of circumstances, that proposed payroll changes have been closely coordinated with all concerned. I give you this rough idea of how Western is organized to show how important Western considers

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Mr. LUKE after graduation from the University of Illinois, entered the Hawthorne Plant of the Western Electric Company in accounting work. From 1937 until 1948 was assigned to various business methods projects. During the War he served as a commissioned officer in the Inspector General Department. In 1948 he was transferred by Western Electric to the New York Office as Accounting Development Supervisor.

its Payroll System and also to point out that we believe there must be something more than the mere designation or assignment of a Payroll Systems and Procedures man. We are convinced there must be a plan and this plan is an integral part of overall management planning.

Punctual and Accurate Payrolls Pay Dividends in Human Relations

Second, management must carry on two important relationships. The combined relationship with employees and the public is a most subtle one, yet how often do Systems and Procedures personnel fully realize the payroll is one of the most direct links the company has with its employees and the public. Everybody knows the employee wants his pay and wants it accurately and punctually. Beyond this basic consideration the relationship becomes somewhat less definite. While the possession of a good payroll system will not categorically assure good labor-management and public relations, the accuracy and punctuality a good payroll system provides will do no harm and the odds are their existence will do much good. This is because the pocketbook is so sensitive; one would think it were a part of the body, personal and politic. There is no question what would happen should most of us receive our pay irregularly and inaccurately; not only should we be unable to pay our creditors but they in turn would face the same problems. This effect alone will most certainly react adversely to the company.

Unlike the employee and public relationships, in the relationship with Government there are few, if any, subtleties. This relationship is generally of a regulatory nature, especially in the past quarter century. Under present laws covering Income Tax Withholdings, Social Security, etc., the payroll is one of the most sensitive of the channels through which business feels the effect of Government, both Federal and otherwise. Again the accuracy and punctuality inherent to a good payroll system backed up by the adequate records it also provides, will help management beyond measure to maintain sound Governmental relations. Thus, again, it is evident Systems and Procedures work on payrolls must be a part of management planning.

Third, management must have effective controls. The two foregoing reasons are sufficient unto themselves to justify Systems and Procedures work as an integral part of management planning but the real clincher is that management wants and must have effective control over the salaries and wages disbursed through the Payroll System. Here is where the Systems and Procedure man really comes into his own as a part of management planning, for without good controls of salaries and wages, costing and pricing and a great many other company activities cannot be carried on effectively.

A Savings in Payroll Costs is Estimated at 15%

Accepting the foregoing reasons for the importance of payroll systems work and also noting the characteristics of accuracy, punctuality, adequacy of records, and management controls as the prerequisites of a good payroll system, here is how Western conducted its investigations which have resulted in annual savings of about 15% over what the payroll job cost before the changes were made.

In connection with certain overall clerical surveys undertaken toward the end of World War II the payroll job as a whole had been flow charted. This was quite a chore but well worth the effort, for an examination of the flow charts for the then existing payroll routines disclosed that by and large the only mechanical equipment in use was that on which the payrolls were printed. Stated in another way, we were still literally figuring our payrolls by what amounted to counting on our fingers, writing down the answers, and then printing them. However startling you might consider this disclosure, I am convinced Western's manual method of computing and compiling payrolls is an efficient and relatively inexpensive system. As a matter of fact, it remains practically unchanged in some of our smaller locations. My conviction is based upon the small savings percentagewise which subsequently developed.

Taking off from the observation we were figuring wages manually, writing them down manually, and then printing them mechanically, we set out to see whether these operations could be handled mechanically throughout. Our objective might be termed the antiseptic approach, i.e., a payroll untouched or rarely touched by human hands. We haven't reached this Utopia yet but we have come quite a way.

To understand what was done, let me fill in sufficient background material on how our clerical routines incident to payrolls operate.

1. With relatively few exceptions our shop personnel is hourly rated, i.e., wages are essentially the product of hours and a rate per hour. In addition, most shop personnel is paid on a wage incentive basis, i.e., piece work, either monthly group which predominates or individual. I know some of you are wondering how shop personnel can be called hourly rated yet be paid on an incentive basis based on piece work. It's

not so tough after all, if we keep in mind all payment plans can be reduced in the long run to a rate per unit (hours, weeks, months, pieces) which can be applied to the sum of the same units. What we actually do is first determine the % incentive realized by a group of employees or an individual and then apply this percentage to be paid to the employee's individual earnings at his hourly rate.

2. Aside from certain indirect labor orders such as orders covering payments to employees for time charged but not worked, our shop employees work on only one or two orders a week, week in and week out. In other words, most of our shop work is performed on running orders established in effect by type of operation and/or product. Thus, on balance most of our shop employees will have but one or two time charges a week since the number of different operations or products per organization is small. Actually, time charges per employee average overall about 3 per week because of certain occupations such as tool makers, etc. who work to a large degree on definite plant and expense orders. With this running shop order set-up you can observe it is quite simple to get all of an employee's time collected. We do it, by and large, on a work assignment card issued for a week at a time.

3. Having indicated the time charging portion of the payroll system, it is necessary to describe the incentive side. Western is mainly on a time rate plan, i.e., incentive rates are generally expressed in terms of credit hours per 100 pieces. Output at a pay point is extended by these time rates to give what we know as time rate credit for the employees who produced the output. To this time rate credit we relate the actual time charged; the difference is known as the balance earned and is expressed as a % of the actual time charged. This percentage is then added to the values of the employees' earnings at their hourly rates.

With this background filled in it is apparent that if we could use the same details to evaluate time charged, summarize it in total for payroll purposes, and in addition distribute the labor paid over the orders on which the work was done we might effect a savings. Moreover, the latter operation might be performed much faster than under the manual system because the same details could be used both for payroll and labor distribution with less chance for discrepancies developing. In addition, all deductions applying against the payroll such as taxes, stock purchases, thrift plans, etc. might also be fed into the system, thus permitting a net pay figure for each employee. There are by-products too, but all these are but ramifications and therefore have no place in this, a general discussion.

Having determined the broad outline of how a payroll might be figured mechanically, we set up a payroll laboratory staffed by Business Methods personnel. Here we experimented for about 6 months using representative sections of the payrolls of the past as details. This procedure, you will note, provided automatic checks since the figures used had already been processed and paid, and therefore, theoretically, the mechanical payroll should return the same answers. Fortunately, and I say this advisedly, there were enough discrepancies to make the investigations incidents thereto a most fertile field for sharpening mechanical routines. From these experiments tentative routines were established.

Experiment Extended to Current Payroll for Proper Scheduling

With the initial experimentation on dead payrolls out of the way, we set out to try the newly developed mechanical routines on current payrolls. At the time we were not firmly convinced as yet that the mechanical routines would prove in, principally because of schedule considerations. Hence we decided to run selected current payrolls (about 5% of total rolls) in parallel, i.e., using a duplicate copy of the work assignments, the same ingredients used in the manual system, we also computed and compiled a payroll mechanically. Since the earlier experiments had indicated where discrepancies might develop, we had no great difficulties as to accuracy. Our problems were of a schedule nature, i.e., we found initially that the mechanical payroll could not keep up with the manual system. This is not an unusual condition, I believe, because manual systems usually do allow the application of additional help quite handily whereas the reverse is not necessarily true. However, in view of the company payroll policy of punctuality and accuracy, clearly we could not be satisfied with an indicated slower or less flexible system because of the possible adverse employee reaction which might be generated; also it did not seem advisable to reschedule payroll payment dates merely for the purpose of allowing compliance with a schedule. What we actually did was to keep on running the mechanical payroll in parallel with constant attention to the minute details in an effort to develop a winning combination. In short, just old fashioned sweating out of the blood, sweat and tears combination incident to arrangements and rearrangements of work areas, the setting up of different equipment combinations, changing of operation sequence, training of personnel, etc. proved in the mechanical payroll. Slowly, but surely, the gap in schedule began to narrow but it took nearly three months or 13 payrolls to close it entirely and another three months to show an improvement of as little as one hour over the manual system. Some payrolls are paid each day of the week, and I should say

we took the toughest possible payroll sections for the initial tryout, i.e., piece work rolls paid on the Wednesday following the end of the week on Saturday. When the gap was closed, we discontinued the manual and proceeded on the mechanical basis exclusively for the selected payrolls.

In the meantime, Methods men had been studying the most practicable method to be followed in cutting over the balance (95%) of the payrolls. In view of the schedule difficulties we were then having, the continuance of the parallel method was most logical especially since little if any trained help was available, other than in the initial installation. Using this meager reservoir of trained personnel as a cadre, we enlarged the mechanical payroll unit and took on other payroll sections at the rate of 5% bites every two to four weeks, i.e., each payroll section added was run in parallel with the manual system for two to four weeks and then the manual system was discontinued. This running in period of two to four weeks by this time allowed us to eliminate quite early the gremlins peculiar to a particular shop.

Observations of Experiments

So much for what was done; what we learned from the cases is of far greater importance. Some of these things are:

a. Just because the payroll is working well is not necessarily an indication attention is not needed. Sheer muscle may be the main reason there is no trouble. Here is where the Systems and Procedures man must be alert to get his ideas across so that his payroll investigations will have a friend at the court of management. He therefore must obtain a place for his plans in the overall management plan.

b. Each company policy must be examined critically as to the cost in clerical effort. Get the policies changed if at all advisable or determine whether approximately the same results could be achieved with a slightly different approach.

c. Since existing routines are a distillate of time, i.e., exist in the present form from the installation of a series of relatively minor individual changes over the years, it is not enough merely to mechanize a manual routine. Every effort must be made to take full advantage of mechanical capabilities by complete reengineering. It is the fresh approach which usually pays the dividends. While flow charts are of immense value they should be recognized as a means to an end, not the end itself. Looking at the same ingredients in the same manner for long periods can often obscure the issue rather than clarify it.

d. Paperwork must be capable of extremely simple application in a mechanical installation. Reading must be easily translatable into almost instant mechanical reaction. Form design therefore is of utmost importance.

e. In large installations such as Western's payrolls one Systems and Procedures man cannot do the whole job himself—there must be capable leadership which in this case means among other things the courage to delegate responsibilities not only to other Systems and Procedures men but to the organizations which will do the work. Further, constant follow-up on progress must be made; otherwise the case tends to start, stumble and then stall on the grist of detail.

f. Cultivate, in fact enlist in your service, the organizations which will ultimately do the work. Give them a most significant part in the investigation case —sometimes you can get them to believe the whole matter is their idea. Make those organizations feel important because honey attracts more flies than vinegar every time. Conversely, a Systems and Procedures man appearing to want to ram an idea down a line organization's throat often succeeds only in killing the idea. Remember, there are many ways of resisting a change without taking the musket from the mantel. Non-cooperation, for example, is so effective in stifling a plan.

g. Tie in all contemplated payroll changes with those familiar with the possible effects on other routines. In the Western's case some of the discussions concerning other routines affected led to important side improvements.

h. There is at least one definite additional possibility under consideration right now. It is a study to ascertain whether we can further extend the predetermination of our payrolls in view of our simple shop order system and relatively infrequent changes in time charging overall. The idea is not entirely our own as it is also covered in an article published in N.A.C.A. Bulletin, Vo. XXX #10, January 15, 1949, "Predetermined Payroll for Efficient Labor Accounting and Cost Control". The article is written about the National Tube Co. Success for this venture probably will mean much better utilization of time and equipment.

Those are the high spots of the installation of a new payroll system which took a lot of hard work and time to do. Yet all of us involved in the case, I am sure, found it a most challenging assignment and rewarding beyond measure. And while the formal development case has been closed the study continues and we hope sincerely somebody sometime will find a still better way to figure payrolls, pay them, and distribute salaries and wages in costs.

SOMETHING TO LOOK AT

Procedures Will Come Alive Through Visual Aids

(A paper presented at the Third Annual National Systems Meeting)

By ALAN HALL

I AM especially happy to meet with you today because I've always believed that the field of visual aids and the field of systems and procedures are a hand-and-glove combination. In fact, as I see it, a visual aid can often be the most effective means to translate the system into procedural terms. If a system is a method or way of accomplishing work, and if a procedure is the recording or description of the system, then it seems plausible that a procedure can be no better than the system it records. Any disparity between the two must lie on the side of inadequacy of the procedure.

Let me give you an illustration. I once heard of a city where many consumers of gas still had to get the gas by dropping a quarter in an old-fashioned meter. That was the system whereby the gas company took in a large part of its revenue. One day the gas company hired a new collector. The manager briefed him on procedure: "Here are the names and addresses of everyone in your collections area who has a coin gas meter. You have to make your complete rounds once a month. Now, here's a master key which will open all the boxes. Go around and empty them in the order shown on this chart of your route. Get all the quarters. Do you have any questions on this procedure?"

"It's perfectly clear," the new collector said. "Good," said the manager. "Oh, by the way, if you discover any dampness in the boxes, report it to me immediately. That means the consumer has been making quarters out of ice, dropping them in the boxes, and hoping they will melt and leave no trace. Clever, huh? But we catch them. Our procedure is fool-proof!"

The new collector was gone for a week. Then he walked back into the office and said: "Can I have another key? I accidentally dropped that one I had down a manhole." "Sure," said the manager. "But where the hell have you been? Last Friday the cashier stayed here until 7 p.m. waiting to give you your wages." "Wages?" said the new collector. "Jeez! Do I get wages, too?" . . .

That, I submit, is a clear-cut instance of the procedure being unequal to the system!

But let's leave the gas works and get back to visual aids. If the system is the mother of the procedure, then it's fair to say that prior to World War II the audio-visual aid was at best only a sometimes competent midwife. But the war changed that—and with a vengeance. Now, if you use the audio-visual aids at your disposal to fullest advantage, the infant mortality rate of your procedures should be next to nothing. Given a healthy procedure, fully developed and ready for delivery to an organization, the audio-visual aid can be a top-notch obstetrician. It can express the know-how you wish to communicate in terms that can readily be understood and put into practice: the procedure will be born alive!

That last statement is a pure assertion. It can stand some substantiating. Let's take a closer look at this highly-touted phrase "visual aid".

Despite the great progress in the field of visual aids during and since World War II, there have been no radical innovations or new inventions in visual aids during this period. There are no fundamentally new visual aid tools, although that is certainly not to be regarded as a prediction that none will appear in the future. The "new" overhead projector is a clever device, but its predecessors have been around for years; it has only just recently caught on. The "new" opaque projector is merely an up-to-date version of the old-fashioned "Magic Lantern".

The "new" automatic sound-slidefilm projector is almost as venerable a device as the "push-pull-click-click" slidefilm projector, although the early models had many bugs and you never knew for sure when the machine would get a notion of its own. When it did, it either started to gallop out of the room, or it simply went on strike, in which case you had to swallow your pride, grab the string and yank each frame into view

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Mr. HALL as a member of the editorial board of the Research Institute of America is instrumental in creating a program aimed at management development at all levels. Coming from an academic background of law and business administration, Mr. Hall's experience cuts a broad swatch across the fields of journalism, business and other communications media. As part of this career, Mr. Hall has been a newspaper editor, a radio news commentator and chief of operational analysis in a large aircraft plant.

at the command of the bing, bong or bang. I'm happy to express the opinion that present models are practically bug-free and don't often assert their independence.

No, the tools are pretty much unchanged. The difference, the progress lies in our own vastly broadened knowledge of how to use them. There was opposition to this progress – make no mistake about that. There are still a few people in this world—fewer every day, I'm happy to conjecture—who regard any visual aid except the old, reliable blackboard as a new-fangled contraption, a diabolical machine, a fad that will go the way of the flying machine!

Visual Aids Weaken Resistance to Changes

I fondly recall the salty old Navy Captain who didn't believe in "all this foolishness". We were making a training film on a system and procedure of a sort—namely, how to go over a 15-foot wall and come down in one piece. The Captain hadn't approved of that film or any film to begin with. On this particular day we had just finished shooting the scene where the men had reached the top of the barrier and were scrambling down toward the ground and the camera. The Captain chose that precise moment to come up and announce that the men we were using as actors were being put on another detail. He blandly told us they would be replaced by new men, so our shooting schedule would not be held up. You can imagine our predicament. You simply don't have a bunch of guys, with whose faces an audience has become familiar, jump off a wall—and then, in the next scene, find they're all different people when they hit the ground! We tried to explain this to the Captain. But he was one of those fellows who believed in blackboards—period. It finally took an admiral to get him straightened out on our procedure. And the admiral didn't need a visual aid for his presentation, either!

Of course, I well realize that I can't tell you systems and procedures people anything about resistance to change. Right up there in an honored place alongside the visual aids, new systems and procedures often represent changes that some die-hards simply can't resist resisting. It's a tough fight sometimes, isn't it?

But visual aids can make the battle easier. And, where there is no resistance, but instead a real desire to adjust to the new, visual aids can make the presentation and the training a definite pleasure.

The reason there has been such an impressive improvement in visual aid techniques is that we now know so much more about that word "visual". The "aid" part has always been more or less an expression of good intentions. But only recently have we come to understand the elements that go to make up that concept of "visual".

More Knowledge Is Retained With Visual Aids

We know now that, on the most primitive level, we start out with something to look at. That may seem painfully obvious, but it's amazing how long human beings tried to teach and train and explain things to each other without offering each other anything to see. It's especially amazing when you consider that psychologists estimate that over three-quarters of our knowledge enters our heads by way of our eyes. Our other four senses are mighty poor "also-rans".

Once you have something to look at—no matter whether it's a concrete object, a representation of an object, or a symbol for something abstract (Did I hear someone thinking "pick up, transport, file, inspect"?) —once there's something to see, attention is arrested and interest begins. If the interest can be maintained, you then have a visual aid.

The predominance of sight is easily illustrated. I pull a rubber mouse out of my pocket and hold it here dangling by its tail. Everyone in this room is looking at the mouse at this moment.

I draw another foolish object from my pocket—a pair of celluloid teeth with built-in clockwork to make them chatter (if they're working today). Now your attention is divided; a few of you are still eyeing the mouse. I put the mouse back in my pocket and now you concentrate on the teeth. Before you become bored with them, I'll put them away too.

What's the purpose of such tomfoolery? Simply this: Those two objects were visual aids to my presentation. The cards were stacked—it was the incongruity of the objects as well as their visual impact that arrested your attention. You don't expect to run into rubber mice and chattering teeth in the midst of a sober discussion of the predominance of the visual sense. But because you were feinted off balance psychologically, and because the stimulation hit you through your eyes, you will remember that silly rubber mouse and those ridiculous, meaningless, chattering teeth long after you have forgotten almost every single word you've heard here. That, ladies and gentlemen, is the power of the visual aid.

To harness that power you of course need more than merely something to look at. If I had simply placed the mouse and the teeth on the table, and fallen silent and waited, things would have begun to happen fast. Your attention having been arrested, your interest would have waxed briefly and then rapidly waned. And within a few distressingly short minutes you would have indignantly left this room.

(Continued on page 29)

GAINING ACCEPTANCE OF NEW IDEAS

(Continued from page 8)

When these authority and responsibility statements were examined, it was apparent that major organizational changes were desirable. Many of the key people within the Company were well aware of improvements which were needed before this was done and were merely waiting for an opportunity to make the desired changes. This not only aided in developing the changes, but it made acceptance much easier.

This was the first major administrative engineering project which the Company undertook. It represented something new in that the Company did not have up-to-date organization charts before, and only a limited number of individuals had access to the few charts that did exist.

We attempted to establish an ideal plan of organization for the Company and for each major organization unit, and then to see how our key people could be fitted into the ideal most effectively. This combined organization planning and personnel planning, and as a result, many individuals were given a more important place in the Company's management.

Organization Concepts Introduced. The following guiding principles were agreed upon before individual departmental studies were undertaken.

1. Separation of Plant and Corporate functions.
2. Establishment of a Uniform Plan of Organization for both Plants.
3. Recognition of three management levels, the Board of Directors, the Corporate Offices and the Plants.
4. Designation of Vice Presidents in charge of Divisions.
5. Adoption of Line and Staff Principles
6. Standardization of Nomenclature and Titles.

Character of Changes Made. The following types of changes were introduced:

1. Responsibilities and authority were clarified.
2. Delegations of authority tables were established.
3. Duplication and conflicts were eliminated.
4. New organizational units were established to carry out new functions.
5. Certain organization units and functions were eliminated.
6. Certain functions were transferred from one department to another.

Major Organizational Changes Effected. Some of the major organizational changes resulting from this study are as follows:

1. Establishment of a Director of Production over both plants.
2. Creation of a Process and Production Planning Department.
3. Expansion of Industrial Engineering activities through the creation of a Quality Control Section, Standards Control Section and a Methods Engineering Section.
4. Creation of an Industrial Relations Department at the Corporate level.
5. Expansion of our Research Program.
6. Centralization of all staff supply and procurement functions at the Corporate level.
7. Expansion of Internal Auditing and setting up of an Office Service Section in the newly established Controller's Department.
8. Improvement in our plant organization by reducing the number of individuals reporting to the Enka Plant Manager from 20 to 11, and the Lowland Plant Manager from 12 to 9. This was effected largely through the consolidation of all engineering functions, personnel and industrial relations functions, and supply and warehousing functions under three department heads, each in their respective fields, and by placing certain other units under key subordinates of the Plant Managers.
9. Establishment of a Business Analysis and Market Research Department in the Office of the President.

The Company reorganization took place in February of this year, and major functions and responsibilities were then assigned to departments throughout the Company. But the job of rounding out the departmental organization structure remained to be done. This became a responsibility of the department heads working in cooperation with the Administrative Engineering Department. This required several months, and in August of this year, the final concurrences of every department head and the Divisional Vice Presidents were obtained to the Company Organization Manual. It was then presented to the President for his approval.

The Manual, which was distributed widely in the Corporate Offices and plants, is an authoritative guide as to responsibilities for major programs at top organizational levels, and for day-to-day operations in line departments. In addition to improving organization, it focused additional attention on the need for executive development and training on all organization levels. As a result, executive development and foreman and supervisory training programs are now being planned. Other benefits from the Organization Manual are:

1. Better understanding of responsibilities throughout the Company.
2. More harmonious relationships between Staff and Line groups.

3. Aid in administering other programs, such as job evaluation, merit rating, foreman training, etc.

At Enka we use two major approaches to organization analysis:

1. From the top down. Under this approach, all departmental managers participate. It involves:
   (1) Identifying major work processes and activities.
   (2) Breaking them down into specific responsibilities.
   (3) Identifying and insuring proper relationships between major organizational units.
   (4) Eliminating duplication, conflicts, etc.
2. From the Bottom Up. Organization analysis from the bottom up will be carried out as a part of our procedure studies. Such an analysis relates closely to work processes, and the flow of documents between organization units. Our procedure studies will cause additional organization improvement, but these improvements will be more closely identified with day-to-day operations rather than changes in major programs or functions of Departments. All of our supervisors will participate in the analyses of procedures.

Company-Wide Particiption in Policy and Procedure Analysis

During the preparation of the Organization Manual, there were frequent discussions which related to procedures. As a result, numerous procedural changes were made, largely of two types, elimination of functions, or transferring functions from one department to another. In general, we tried to correct any procedural deficiencies which were apparent at that time without conducting any major studies, as this is a part of our procedures improvement program.

Following the completion of the Company Organization Manual, the Administrative Engineering Planning Committee met for the purpose of developing a company-wide approach to the analysis of policy and procedure. Twenty individual policy and procedure projects were planned. Many will result in policy and procedure manuals. Some of these projects are shown below:

PROJECT	PARTICIPATING DEPARTMENTS
1. Supply and Procurement Covers all supply and procurement functions for the corporate offices and plants, including procurement planning, determination of requirements and specifications, purchasing, receiving, storing, issueing, inventories, stock control, etc., up to payment.	Corporate Offices: Purchasing Traffic Controller General Engineering Plants: Enka—General Stores Lowland—General Stores Lowland—Plant Accounting
2. Finished Product Operations Covers production planning, scheduling of production, sales orders, shipping instructions, status of shipments, records and reports, routings, rates, bills of lading, credit clearance, collection, billing operations, receivables, receipt, storage, shipment, records, reports, inventories, etc.	Corporate Offices: Process and Production Planning Sales Traffic Treasurer Controller Plants: Enka—General Stores Lowland—General Stores
3. Engineering Administration Covers all administrative functions of Engineering, Staff and Line	Corporate Offices: General Engineering Controller Plants: Enka—Plant Engineering Lowland—Plant Engineering
4. Personnel Administration Covers all Personnel and Industrial Relations functions, Staff and Line	Corporate Offices: General Industrial Relations Controller General Industrial Engineering Plants: Enka—Plant Industrial Relations Lowland—Plant Industrial Relations

It will be noted that a functional approach is taken to policy and procedure analysis, and that all Staff Departments and their Line counterparts affected participate in developing improvements. Project priority is determined largely on the basis of the number of employees engaged in a particular function. It is assumed that the greatest gains will be in those areas where the greatest number of people are working.

All interested Departments participate in carrying out each major step in a policy and procedures project. These steps are:

1. Planning. A written plan is developed for each major project. All the interested Department heads participate in its development, and approve the final plan before the project is undertaken.
2. Fact Finding. Normally this involves the preparation of procedures flow charts showing the flow of each copy of each form and the action taken on them. Where Department heads have assigned someone to work on procedures studies, these individuals prepare the charts. In other Departments, this is done by the Department head or by the Administrative Engineering Department.
3. Analysis and Development. The analysis of the procedures flow charts is through group discussion with the individuals who prepared the charts, the Departments heads affected, and the Administrative Engineering Department. These meetings are very informal, largely a

"thinking out loud" process. Frequently the procedures charts are put on the blackboard or on slides so that each participant sees the overall picture — sometimes for the first time. Each member of the group voices his own opinion or suggestions. In some of the meetings only a few people are present. At others there may be a dozen. It depends on the extent of departmental interest.

As a result of these discussions, the departmental representatives and sometimes the Administrative Engineering Department are assigned the task of following through and developing certain improvements. Sometimes the improvements are developed completely during the group discussion. In either case, all department heads concerned concur in any changes before they are placed into effect.

4. Testing and Installing. Frequently changes must be further perfected through actual test on the job. The supervisor responsible for the operation assumes this responsibility. The Administrative Engineering Department participates where a major change is planned or where several Departments are affected, but Department heads are encouraged to assume responsibility for installing new ideas. Frequently something is developed and tested in one plant. When fully perfected, it is then installed in the other plant.

5. Follow Up. After a procedure has been in effect for some time, further refinements are frequently developed. This is handled on the same basis as the original change.

Participation applies to all phases of a procedures project. In our desire to accomplish things quickly we do not bypass any individual who has a legitimate interest in the particular procedure under study. Participation in procedure refinement has paid dividends.

DEPARTMENTAL PARTICIPATION IN POLICY AND PROCEDURE MANUALS

X - One Corporate or Plant Department Participating
XX - Two Plant Departments Participating

MANUALS	CORPORATE														PLANT							
	Purchasing	Traffic	Controllers	General Engineering	Process and Production Planning	Sales	Treasurers	General Industrial Relations	General Industrial Engineering	Research	Legal and Secretarial	Patent	Tax	Enka and Lowland General Stores	Lowland - Plant Accounting	Enka and Lowland Plant Engineering	Enka and Lowland Industrial Relations	Enka - Scheduling	Lowland - Plant Industrial Engineering	Enka and Lowland Chief Chemists	Enka and Lowland Plant Managers	TOTAL
Supply and Procurement	X	X	X	X										XX	X							7
Finished Product Operations		X	X		X	X	X							XX								7
Engineering Administration			X	X												XX						4
Personal Administration			X					X	X								XX					5
Employee Handbook			X					X	X								XX					5
Foreman's Manual			X					X	X								XX					5
Production Planning Scheduling and Control			X		X													X	X			4
Accounting			X										X									2
Capital Assets			X	X																		2
Internal Auditing			X																			1
Administration of Research										X												1
Administration of Technical Operations					X															XX		3
Plant Administration																					XX	2
Treasury Administration				X			X															2
Machine Accounting			X																			1
Sales Manual		X	X		X	X	X															5
Office Management (New York Office)			X			X	X	X														4
Legal and Secretarial Practices			X					X			X											3
Industrial Engineering Administration			X	X	X			X	X													5
Patent Administration												X										1
TOTAL	1	3	15	5	5	3	4	6	4	1	1	1	1	4	1	2	6	1	1	2	2	69

Major Factors in Gaining Acceptance

The influence of key officials is a significant factor in gaining acceptance to new ideas at all organization levels. New ideas having company-wide implications are more effectively administered with management support. Such ideas should therefore be presented to top management and key officials first to gain their support in securing acceptance in subordinate organization units.

The extent to which such ideas are accepted within their respective organizational units will depend largely on the leadership and attitude of these key personalities. At Enka, this leadership rightfully has been assumed by the President and his key subordinates.

The management philosophy of the President of the American Enka Corporation involves four company objectives:

1. To maintain a high level of executive, supervisory and employee morale.
2. To be the most finely managed company in the Rayon Industry.
3. To be the most highly respected, and
4. To be the most successful in relation to profit potential.

The first step in improving administration is to determine basic objectives or goals, and to develop a program approach to their accomplishment.

In studying the Company's organizational structure, the basic objective, established by the President, was "To develop the best possible plan of organization with the people now in the company." This not only established a broad objective, but it minimized fear, as our key people were an integral part of organization planning.

Before going into a specific proposal, we consider it desirable to first seek agreement on basic principles. This may involve principles of organization, principles regarding work simplification, principles of forms control, procedure survey, work measurement, etc. We believe that where there is general agreement on basic principles, it is not too difficult to find a common denominator upon which to discuss change.

In developing the revised plan of organization, for example, the first step was to seek an agreement with the key people concerned as to the basic principles of organization which should govern, such as having a uniform plan for both plants, keeping the span of control to a minimum, having only one superior, clarifying and fixing responsibilities, etc. Specific organization proposals were not discussed until the basic objectives and organization principles were agreed to.

It is desirable to start each administrative improvement program with an overall programmed approach. Unless we proceed with an overall plan, we will be continuously putting out little fires. At Enka, we develop an overall plan for each individual program before it is launched and our Department heads concerned concur in the plan. In organization planning, an overall company plan of organization was developed, based on sound organizational concepts and principles, and individual changes were fitted into and made consistent with the overall pattern.

In addition to agreement on objectives, basic principles and an overall plan, we must have specific proposals for each new idea. If we are solving a problem, first of all we made certain that there is a definite problem. We develop the supporting evidence, determine the causes and are cognizant of the related implications. But more important, we develop specific proposals which result in definite improvements. To do this, we must determine what is required to effect the improvement and the benefits to be expected.

It is important not to overlook some individual who is concerned with a particular change or a new idea. For that reason, we have formalized somewhat the process of securing concurrences at Enka. Frequently, this involves concurrence of the Line as well as the Staff officials. Our approach is to secure concurrences of all individuals concerned since we believe it better not to adopt a new idea, than to do so over the objection of one of the interested parties. We seek unanimous approval, without reservation. Where such a policy is followed, it normally places a heavier responsibility on the "holdout" than the individual who initiated the new idea. We do not bypass someone who should be considered.

Maintaining Morale During Periods of Change

Maintaining morale during the period when changes are being developed is an important acceptance factor. We recognize that confidence in management and sound personnel policies are important morale building factors. But, in addition, the effect of change on each individual is considered. We must try to be certain that changes and the reasons for making them are understood, and that the individuals concerned are advised personally by their Line superior, rather than to receive a cold and formal announcement that a change has been directed.

Participating in the development or new ideas not only aids in gaining acceptance but it eases the psychological tension during the developmental process. Participation creates a sense of belonging to the new idea. Changes must be made carefully and with full recognition of the human relations factors involved.

(Continued on page 36)

ESTABLISHING PROCEDURE CONTROL VIA MANUALS

A Presentation of the Benefits Derived from a Definite and Single Source of Instruction

(A paper presented at the Third Annual National Systems Meeting)

By R. M. HARMON

IN considering our subject this afternoon, I would like to divide the problem of procedural manuals into two phases.

Phase I "Why do we need procedural manuals?"
Phase II "How do we go about preparing manuals?"

As a means of training new methods analysts and explaining to our supervisors why procedural manuals are needed, we have developed the chart entitled "How Manuals Aid Management and Employees Alike" (Figure I). It compares what happens when many sources of instructions are utilized to transmit policies and procedures to the field with what happens when a single source is used. On the left of the chart we see an organization which relies on piecemeal manuals, long distance telephone calls, informal memoranda, teletype, numbered circulars and correspondence to transmit its policy and procedural changes to operating personnel. On the right we see an organization which has one complete manual and issues its instructions on policy and procedural changes by issuing a revised sheet to the manual. The items listed on this chart will help us answer the question: Why do we need manuals?

There are probably many more items which might be added to this list, but we have found these points invaluable to us as an aid in presenting to management and employees the need for and use of procedural manuals.

Our second phase was: "How do we go about preparing manuals?" Let us assume that we have been given the responsibility of preparing an "Organizational Plan and Manual" for our Financial organization. Our first step should be to obtain an organizational chart. In some cases, we might find that our primary task is the preparation of such a chart. The organization chart serves as a guide to determine what departments are to be covered by our manual. A sample page of a typical section or department, probably of our own methods department, is prepared. This will outline the provinces, set out the general responsibilities and functions, and determine the relationships and authorities granted. The sample page is distributed to the supervisor or manager of each unit involved. We carefully explain what our objective is, how to go about reaching it, and offer him all the assistance we can in preparing material for his unit. In conjunction with him, we establish a target date for the completion of the job.

When the department manager or supervisor has submitted his material, it is reviewed, edited and checked against the organizational chart and authority letters. Final drafts are submitted for departmental approval and for final approval to the executive requesting the preparation of the manual. When final reproduction and distribution is completed, operating managers have their first important tool for management.

Our next assignment might be the preparation of a procedure and policy manual which covers the cash receipts and disbursements for our marketing divisions. The objective, therefore, is to develop in manual form the policies and procedures which our marketing divisions will use in handling their cash receipts and disbursements. This will require a survey in the branch offices to determine existing policy and procedure. Such a survey consists of the following eight phases: planning, fact finding, analysis, development, testing, publication, installation, and follow-up.

Planning—During the planning phase, select uniform survey techniques, determine the offices to be surveyed, notify respective local managements of the survey plan, request the assignment of an operating employee as a member of the survey team, and request that a copy of each form relating to the procedures be collected. A preliminary check list of the

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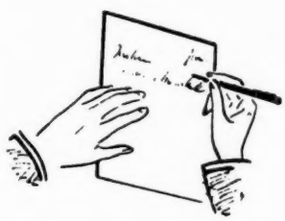
HOW MANUALS AID MANAGE

BEFORE: WHAT CAN HAPPEN WITH MANY SOURCES OF INSTRUCTIONS

PIECEMEAL MANUALS

LONG DISTANCE CALLS



INFORMAL MEMORANDA

TELETYPE

NUMBERED CIRCULARS

CORRESPONDENCE

1. Diversified means of communicating instructions to subordinate offices creates confusion and inconsistency.
2. Diversified sources of instructions bring about variations in the interpretation of policy.
3. Inconsistencies in interpretation of policy and procedure prevent full compliance with management's requirements.
4. Need for on-the-spot decisions creates improper application of treasury policies and procedures.
5. Doubt as to which instruction is the latest results from variety of form and sources of instructions.
6. Constant reference by long distance telephone and by telegram of problems to head office is required when instructions are not maintained currently and in usable form.
7. Word-of-mouth instructions from supervisors create confusion on the part of employees.
8. Training of new employees requires an extended period of relatively unproductive performance.
9. Instructions are difficult and slow to be followed when they are not issued in visual form.
10. Managerial and supervisory control of responsibilities is difficult.
11. Duties are performed by employees in a variety of ways, some incorrect, due to misunderstanding and mistakes.
12. No adequate check is available in determining the ability of employees to follow specific instructions.
13. Lack of complete coordination and lack of mutual understanding among sections exists and a company-wide perspective is difficult.
14. Company liability is high for indiscriminate or unknowing acts of its representatives because proof of adequate management precautions and controls is complicated.
15. Changing conditions are hard to meet because of cumbersome mechanics for review and revision of policy and procedure.
16. Interchange of key employees among offices requires continuing training where procedures are not uniform, and flexibility in expansion or contraction of offices is limited.
17. Auditing procedures are necessarily varied and complicated.

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GEMENT AND EMPLOYEES ALIKE

AFTER: WHAT HAPPENS WITH A SINGLE SOURCE OF INSTRUCTIONS

ONE COMPLETE MANUAL

1. Management policy is insured of clear and unaltered transmission to all offices.
2. Policies and procedures are explicit and the source specific, eliminating or reducing misunderstanding and friction.
3. Compliance with and uniformity in policy and procedure are insured by a concise authoritative reference guide.
4. Improper formulation of major policy by spot decisions of operating employees is prevented.
5. Instructions are known to be current, since changes in policy and procedure are coded centrally for consistent insertion in the manual and ease of reference.
6. Long distance telephone calls and telegrams requesting instructions are reduced, since the manual is maintained on a current basis.
7. A written record of instructions in usable form is at all times available to supervisors, management's first contact with the employees.
8. Training time of new employees is materially reduced.
9. Supervisory and other employees are properly and rapidly informed of their assigned duties.
10. The supervisor is aided in the control of his responsibilities, and management in the control of the supervisor.
11. Assigned duties are performed the same way and the right way, avoiding misunderstanding and mistakes.
12. The ability of employees to follow specific instructions can readily be checked.
13. Complete coordination and mutual understanding among sections and a company-wide perspective are encouraged.
14. Company liability is minimized for indiscriminate or unknowing acts of its representatives by establishing that management's precautions and controls are proper.
15. Over-all review and revision of policy and procedure are facilitated to meet changing conditions.
16. Flexibility is allowed in expansion or contraction of offices and in the interchange of key employees among offices.
17. Auditing is facilitated.

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procedures to be studied is prepared and target dates for ensuing phases are established.

Fact Finding—Upon arrival at the selected office, the survey plans are reviewed with local management and a meeting of section supervisors is held. At this time the outline of our approach and the methods to be used are reviewed.

The preliminary check list of procedures is reviwed, revised if necessary, and is then distributed to all supervisors involved. The forms which have been collected are classified by procedure and placed in individual folders. By observation and interview, we determine the procedure as follows:

A. Identify the form or transaction document involved.
B. Identify the work steps and determine the sequence in which they are performed. Determine the equipment used and the source of information.
C. Record data on a procedure analysis work sheet.
D. Prepare the procedure flow chart.

While obtaining this information, the operating personnel being interviewed are encouraged to submit recommendations for improvement. The success of the survey is dependent not only upon the cooperation received from the employees, but the ideas for improvements and changes which are obtained from the fact finding phase. Too often methods surveys have not been successful because analysts have failed to recognize the value of the operating employees and have not given due credit for suggestions received from them. During the fact finding phase, all letters or circulars containing policies are obtained. A word of caution. Make sure that the flow charts prepared have been signed by the employee interviewed, his supervisor, and the Office Manager. In addition, review all letters and circulars setting forth policies with the Office Manager. This is to insure that local management is in agreement with the data obtained during the fact finding phase.

Analysis—The analysis phase usually takes place after the return to Head Office and consists of a round-table discussion attended not only by the methods analysts but also by a division office representative who has returned with us to Head Office. Taking procedure by procedure, we analyze our flow charts in terms of straight line flow of work, unnecessary steps, unnecessary documents or copies of documents, equipment utilization, forms design, and organization relationships to functions performed. During the analysis phase, we consider not only the recommendations accumulated from the operating employees but the improvements suggested by the survey team. Having generally determined the elements which compose the best possible procedure, we delegate the preparation of a proposed flow chart to one of the members of the team. Each procedure involved is then reviewed and the preparation of the new flow charts is assigned to the other members of the team.

For example, in the preparation of our cash receipts and disbursements manual, sixteen procedural flow charts were prepared. The following list of charts will illustrate the procedures covered.

CHART	DESCRIPTION
1.	Receipt of Direct Remittances
2.	Deposit and Allocation of Direct Check Remittances
3.	Verification & Summarization of Depot Cash and Journal Report
4.	Division Deposit of Depot Remittances
5.	Processing of Depot Deposit Slips
6.	Processing of Depot Remittance Detail
7.	Posting of Remittances to Accounts Receivable
8.	Notification and Follow-up of Cash Sales Differences
9.	} Preparation of Cash Receipts Register
10.	
11.	
12.	Vouchers Payable
13.	Disbursement and Replenishment of Petty Cash Fund
14.	Bank Account Reconciliation of Regular Accounts—Manual Procedure
15.	Bank Account Reconciliation of Regular Accounts—Tabulating Procedure
16.	Bank Account Reconciliation of Payroll Account—Manual Procedure
17.	Processing Dealer Material Order Form—Cash orders

Development — The revised procedural charts are submitted to the survey team for their review and consideration. Existing policies are analyzed and where policies are not in agreement with proposed procedures, necessary policy changes are prepared for approval of management. As soon as policy changes have been cleared with proper authorities, the analysts prepare the necessary text to accompany procedural flow charts. The following table of contents will best illustrate the text prepared to accompany our procedural flow charts.

TABLE OF CONTENTS

SECTION 1. CASH RECEIPTS POLICIES AND PROCEDURES

Direct Remittances
Currency Remittances
Check Remittances
Checks Requiring Special Handling
Personally Presented Customer Checks
Late Remittances

Cash Discounts
Endorsements—Customers' Checks
Counterfeit Money
Checks Returned by Bank
Collections by Other Employees
Trade Acceptances
Depot Remittances
Depot Cash and Journal Report
Cash Differences
Depot Deposits
Armored Motor Service
Night Depositories
Depot Endorsements of Customer Checks
Returned Checks
Transfer of Depot Collections
Cashing Checks at Depots
Recording of Cash Receipts

SECTION 2. CASH DISBURSEMENTS POLICIES AND PROCEDURES

Payment of Invoices
Approvals
Verification, Coding and Numbering
Cash Discounts
Delayed Payment
Deductions from Payments
Payments from Schedules
Check Signatures
Releasing Checks
Audited Vouchers Payable
Filing
Delayed Release of Checks
Payroll Disbursements
Check Signing Machine
Blank Checks
Returned Company Checks
Cancellation of Checks
  General Disbursement Account
  Payroll Account
Control of Bank Balances
Stop-Payment Checks
Requirements for Cash
Bank Account Reconciliations
  Division Office Disbursement Accounts
  Depository Accounts
  Petty Cash Bank Accounts
Petty Cash
  Petty Cash Funds
  Petty Cash Bank Accounts
Safes
Cashing Employee Checks at Division Offices

As an example of policy material contained in the manual, let me quote from the manual the policy on Returned Company Checks.

"Company checks returned by payees or by the post office will be routed to the Supervisor-Utility (Chief Accountant, if payroll checks) for determination of cause of return. He will enter the checks in the Register—Checks for Special Handling (Figure 2), showing the reason for return and the final disposition of each item. This register will also be used to record signed checks which are found to be incorrect before release and are cancelled."

Our manuals also includes figures illustrating each form involved in our procedures. Filled in forms are used only when it is desirous to illustrate the method of preparation of the form. The manual is then ready for testing.

Testing—A pilot office is selected in which to test tentative manuals. Necessary approvals for testing are secured and the methods analysts assist the branch office in setting up the test installation. One of the important points to be stressed is the coordination and preparation of the required new forms. During the testing phase, it will be necessary to make modifications and adjustments to the proposed procedures. Give each procedure a fair trial but the analyst should not hesitate in accepting changes where the procedures worked out during the development phase are found to be impractical.

Publication – Prior to publication the test manuals are revised to incorporate changes and suggestions obtained as a result of the testing phase.

Installation—Rather than merely issuing the manuals to all of the branch offices, if possible, consideration should be given to conducting training seminars for supervisors in order to teach them the method of installing the new procedures. It is important to develop a timetable for installation of the various procedures and secure local management's approval thereto. The methods staff should at all times be ready to provide technical assistance to the offices during the period of installation.

Follow-up—Once we have issued a manual to the field, our job has not ended. We establish a systematic follow-up of the new procedures and develop a method of evaluation called administrative audits.

Changes to Manuals Issued By Originating Department

After the issuance of the manuals, it is natural that changes in procedures and policies will occur. In order to keep the manuals up to date, we issue all changes to the manual by issuing new sheets. The new sheets carry in the bottom left hand corner the date of issuance of the page which is being cancelled. The maintenance of the manual in an up-to-date form remains the responsibility of the department for whom is was prepared.

DEVELOPMENT OF COMPETENT SYSTEMS PERSONNEL

A Basis for Determining the Qualifications Required to Fill a Systems Job

(A paper presented at the Third Annual National Systems Meeting)

By R. F. NEUSCHEL

IN approaching this problem of developing competent systems personnel, I think most of us will agree that the long-run success of any systems and procedures staff depends more on the caliber of its members than it does on any other factor. Probably one of the surest ways of avoiding or solving the typical problems that plague most of you systems directors is to find or develop better staff personnel.

I have heard a number of staffs complain bitterly that they lack sufficient management understanding or support to put their programs over. I have heard others lay the blame on company politics. I have seen staffs busily hacking away at relatively minor problems of forms design or clerical mechanics while much more far-reaching problems and opportunities completely escaped their attention. I have seen still other staffs whose batting average was low because they were continuously buried under a multitude of in-process jobs that they never seemed quite able to bring to completion. And, finally, I have seen much needed procedure programs abandoned entirely not too many months after an impressive and ambitious beginning.

Although these symptoms are varied, we probably would all agree that the principal cause in each of these instances is incompetent personnel. That may seem like an oversimplification; yet there probably isn't a single systems director among us who doesn't believe that most of his problems would vanish if he could only find or develop staff personnel in whom he would have complete confidence.

Building Competent Staff Requires Analysis

The key steps in the process of building a competent staff are:

1. Determining the qualifications required to fill the staff job.
2. Finding staff candidates who have the right basic qualities.
3. Continuously helping to improve the performance of all staff members through more and better training and through conscious motivation of their efforts.

Now, let's take a look at each of these steps individually. In any organized human endeavor, the underlying objectives or purpose will govern the kind of people needed to do the job. What you want to accomplish will control who you need to do it.

As a basis for determining the qualifications required to fill a systems job, I am assuming that the objectives of the staff have already been defined and that they are broad in scope. I am assuming that this defined scope includes not only such traditional activities as forms control, and the maintenance of procedure manuals; but, more importantly, the responsibility for the continuous and systematic improvement of all procedures of the business for the purposes of (1) cutting clerical and administrative expense; (2) reducing direct costs by building tighter operating controls; (3) improving service to customers; (4) strengthening executive effectiveness; and (5) improving coordination between departments.

I only want to mention briefly some of the more obvious qualifications in order to distinguish clearly between selection criteria on the one hand and staff training objectives on the other.

First is a series of mental qualifications that include:

1. A logical, analytical, and penetrating mind.
2. Ingenuity and imagination.
3. Well balanced judgment.

Second are the character and personality traits which are essential in the human relations phases of the work. If the staff is to gain acceptance it cannot afford to rely solely on the "authority of its ideas" for probably to an even greater extent its relations with the line organization are governed by the personal

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conduct of its members. This means something more than mere tact or the quality that is loosely referred to as the "ability to get along with people". It is a composite of many factors which add up to faith in the integrity of staff members and to a comfortable feeling toward them and their work.

The final group of qualifications covers the specialized knowledge and technical skills required to do outstanding procedures work. These, of course, include a practical working knowledge of the principles of business organization and control, procedures formulation, work simplification, office layout, forms design, and so on.

So, as requisites to outstanding performance in this field, we have some such assortment of mental, character, and technical qualifications.

Mental and Character Qualifications are Essential

Now, I think that one mistake many systems directors make in recruiting new staff members is that they become too intent on finding men with previous systems experience. That's a natural impulse, of course, but its great danger is that it tends to overemphasize the importance of technical qualifications as a basis for selection. Actually, these technical qualifications can be acquired through training and planned experience. But it is just as certainly true that you can't acquire the essential mental and character qualifications by these processes.

So in considering a person for our staffs we ought to be more influenced by what a person is than by what he has done or claims to have done. Instead of becoming preoccupied with the diversity of procedure problems on which he may have worked, we ought to try, as best we can, to find the answers to such questions as these:

1. Does he have an analytical mind and a highly developed imagination?
2. Is he likely to be open-minded and resourceful?
3. How good is his judgment?
4. Does he have a high degree of personal integrity?
5. Is he motivated by an inherent attitude of service?

Now, where do you find these wonderful people and how do you recognize them when you see them?

Our experience is that if you're going to find the kind of staff members you really need, you've got to go after them instead of waiting for them to come to you.

The probabilities are, particularly in large companies, that some of the persons you want are right in your own organization. You come across them on your surveys. They are the fellows who do their bosses' staff work and represent them on important interdepartmental problems. These men, you might say, have already made the grade as administrative internees.

You may be able to get some of these men if they want to come badly enough and if you can sell their bosses on the idea. Where you can get such a person, he has the great advantage of already knowing the activities and personalities of your company. Here's one suggestion, however: before you approach any of these persons, talk first with his boss, for unless you have the boss's full blessing in advance, you may well lose his support in your future work.

However, the chances are that you'll have to get most of your people from outside the Company. Here again, I want to emphasize the point that you ought not rely on applicants as your only or even your major source of candidates. If you're going to get the kind of men you want you've got to look for them aggressively. Enlist the help of your friends; ask them for their suggestions. Look for candidates in meetings of technical societies such as S. A. M., N. A. C. A., and others. Keep in touch with instructors on management subjects in night courses at your local universities.

One additional point I'd like to pass along to you. Next time you go outside the systems field itself in your search for candidates forget just for once the accounting field and take a good searching look at the industrial engineering field. One of the hardest hitting, broadest-scale organization and procedures staffs I have ever seen is comprised almost entirely of graduate industrial engineers. They are doing an outstanding job largely because they are all highly skilled in fact-gathering, diagnosis, and creative thinking. I have a strong feeling that in the building of systems staffs, too much emphasis has been placed on accounting knowledge and not enough on an approach to or a way of thinking about business problems.

Suggestions for Selecting Staff Candidates

Probably one of the reasons that so much emphasis is ordinarily given to technical knowledge and experience in your recruiting efforts is that it's a lot easier to find out about and evaluate these factors than it is to evaluate mental abilities and character traits. So if you are going to give more emphasis to the latter, how are you going to tell whether a candidate has good mental equipment and other important personal qualities?

The answer is that you will never be able to tell for sure, but you should be able to do a much more thorough and precise job of it than is ordinarily done. Here are some specific suggestions that I hope will be helpful.

1. Don't rely on a single interview. One interview may be enough to reject candidates but it isn't enough to select them. Either talk with the individual on at least two occasions yourself or have him interviewed by members of your staff or others in whose judgment you have confidence.

2. Don't regard your interviews simply as casual conversations. Unless you have developed great skill as an interviewer, think about your interviews in advance. Prepare for them so that your questions will be related to the specific things you want to find out about the individual. One of the best helps in this area is a personnel rating sheet that will serve as a guide to planning the interview as well as a basis for summarizing your evaluation of the individual. The principal function of these rating sheets, of course, is to serve as a check list in ensuring that all pertinent factors are considered.

3. Try to pitch the interview at finding out how the candidate would approach a specific problem. If you know something of his background before the interview, develop one or two hypothetical problems within his area of experience to discuss with him during the interview.

4. Ask him if he can make available to you copies of any analytical writing he may have done, particularly any reports or similar type of business writing. Study it to see how well organized, understandable, and logical it is. As a general rule, a person who cannot write clearly also cannot think clearly.

5. Talk with your Personnel Director about the possible use of aptitude and psychological testing, conducted either by the Personnel Department itself or by outside agencies specializing in this work.

6. Do a thorough job of following up on the candidate's references and particularly of talking with people for whom he has worked. Too often only a routine check is made of these sources. Usually it consists of a personnel department form letter asking, "Was his work satisfactory?" and "Would you rehire him?" Since the people for whom the individual worked know most of the things about him that you want to find out, you should exploit this source of information to the fullest possible extent. Again I urge you to think through in advance exactly what it is you want to know about the individual and then frame your questions to his former boss in those terms.

Now essentially what we have been saying on this matter of selecting your staff members is that you ought to think first of basic qualifications and secondarily of knowledge, skills, and experience. Which means that instead of always seeking out trained systems personnel, you often will do better by taking a person with operating experience and a flare for, and interest in staff work and training him.

Developing Systems Staff Entails Sound Planning Project

This brings us to the second important phase of developing a competent systems staff: training. If I were to diagnose the reasons for the relative success of the many organization and procedures staffs I have seen in operation, I would say that they were primarily (1) the caliber of personnel (which factor we have just discussed); (2) the amount of vision and care with which they plan; and (3) the thoroughness, intelligence, and continuity with which the staff is trained.

There are two types of training that I would like to consider individually with you: (1) on-the-job training; and (2) more formal off-the-job training.

Most people kid themselves about "on-the-job training". When someone tells you that his organization does its training on the job, nine times out of ten you'll find that they actually are not doing any training at all. Real on-the-job training is more than just trial and error experience. It is more than merely supervision. It is a conscious, deliberate, planned training that takes place before the job begins, while it is in process, and after it has been completed.

The whole process starts with planning the project. Here the staff director gets together with the member or team of members who are going to carry out the project and "briefs" them on the origin of the project, the known facts about the problem, the organization personalities, etc. Then he asks the staff member or project team to plan the project in detail—that is, to think through clearly what is to be done, how it is to be done, who will perform each step, and when it is to be done.

This is an area in which staff training can be highly specific and one will pay big dividends, for as I have already implied, the better trained that systems analysts are in planning their work, the better end results they are likely to produce.

This is true I think because of the basic character of staff work. One of the conditions peculiar to the operation of most staffs is the high degree of variability in their units of work. This is particularly true of the systems staff. No two of its projects are alike in scope, in the conditions encountered, in the time required for completion, or in the character of the results achieved. In addition there are not any regular daily tasks for the staff to perform, and its members are not normally subject to close supervision. Their work is essentially that of examination, diagnosis, and deliberation—all mental processes for which there are no ready standards of measurement.

For these reasons it frequently happens that very little effective control is ever exercised over staff performance. One of the surest ways of gaining that control as well as of strengthening over-all staff performance is to teach staff members to do a thorough and uniform job of project planning.

I have here a four-page form used by one staff in writing out its project plans. It is labelled "Procedure Project Plan" and contains such captions as: Project title, Origination of the project, Project personnel, Project objectives, Anticipated results, Scope of project (which was usually expressed in terms of areas to be surveyed and specific facts to be gathered), Project schedule or timetable, Progress comments and Completion Report.

The next step in on-the-job training we might call in-process training. That is, as the work progresses, the staff director holds periodic "how goes it" sessions with all members of the team to check their progress against the plan. Wherever possible, before final recommendations are presented to operating executives and supervisors, a "dress rehearsal" is held in which the project member or members make their presentation to the rest of the staff. The latter act as "the devil's advocates" in trying to pick holes in the plan. This serves several purposes. It ensures the soundness of the plan. It prepares the project staff to make an effective final presentation. It helps to train everyone involved.

Extra Curricular Projects Also Train Methods Staff

The final phase of this type of the on-the-job training are the critiques that follow the project. These should consist of group discussions of what you did well so that you can do more of it and what you did badly so you won't make the same mistake next time. Also the staff director or project leader should discuss each person's strengths and weaknesses with him individually.

Particularly in the case of large staffs, this "learning by doing" might profitably be supplemented by more formal "off-the-job" training. This might take the form of regular conferences or seminars conducted by members of the staff. Over a period of time every staff member should be called upon to present a paper based on projects on which he has worked or on original research work. After the formal paper he would, of course, lead the discussion on the subject. This technique serves several training purposes. It makes a person do a lot of digging on the subject assigned. It gives him practice in presenting his subject to a critical audience and in leading the discussion. Finally, of course, it informs the rest of the group.

Other types of off-the-job training in systems work consist of (1) night school studies in this and allied fields (as most of you know, an increasing number of universities are adding courses in the development and improvement of business procedures) and (2) attendance at professional and technical association meetings such as this.

These off-the-job training methods can help to inform and stimulate your staff members. But they will not do the whole job. As an illustration of their limitations there is the story of Joe who took a course to correct his stuttering. When he had finished, one of his pals asked him what it had done for him. Joe proudly stood erect and recited, "Peter Piper picked a peck of pickle peppers" without a flaw. And then he confided "B-but it's p-p-pretty h-hard to d-do in c-c-conversation."

It's not what we know but what we do that counts. And we learn best how to do from on-the-job experiences aided by systematic follow-up and coaching.

Personnel Rating Chart Aids Progress Evaluation

Now, before we leave this subject of training, I'd like to suggest one more point that may be helpful to you in targeting your real training needs. This applies perhaps even more to the older, more experienced staff than it does to the younger groups whose training needs are fairly obvious. This suggestion is that those of you who are directing staffs of some size develop a formal personnel rating chart that will provide a uniform and more objective means by which you can evaluate the progress made by each staff member as well as his future training needs. I have here a copy of one such personnel appraisal sheet which sets out to find the answers to these six questions about each staff member: Does he think effectively? How well is he equipped technically? Does he plan and organize his work well? Is he a self starter? How well does he get his ideas across? How well does he get along with people?

I would strongly suggest that the larger staff groups develop a similar rating form in order to keep its

training program continuously geared to its most pressing needs.

Motivation in Personnel Development is Essential

A final, important aspect of personnel development is motivation. To get maximum results out of his team, I think that the staff director needs to utilize these four major motivating forces:

1. Participation
2. Recognition
3. Job Satisfaction
4. Security.

Participation is particularly important to the kinds of persons with initiative and imagination who will be successful in systems and procedures work. Here participation can take several forms other than that of actually doing the work.

a. Participation in the planning of projects, which we have already discussed

b. Participation in the planning of the staff's long-range program of projects to be undertaken

c. Participation in training by doing research studies and presenting case histories to the group.

Recognition is also a strong motivating force. It's easy to overlook how much systems personnel respond to such things as being allowed to present their own recommendations and to sign their own reports. And, being human, they respond also to praise—either verbal or written commendations.

And the old Army axiom "take care of your men first" applies on promotion and other matters. The morale of people of this type responds especially to the realization that the boss is looking out for their interests and fighting their battles.

Next is job satisfaction. Pride of workmanship is so much a part of the professional person that I hardly need to mention it. It is important, however, that it be tied up with recognition: seeing that people get credit for work well done. Another important consideration is that in order to keep people's morale high, their work must make possible frequent tangible accomplishments. Here the staff director can do two things:

1. First, be sure that he, himself, doesn't impede the progress of the staff members' work. By that I mean that many systems staff directors are active workers in the group. Where this is true the staff director often becomes so immersed in his own projects that he acts as a bottleneck to the staff members whenever they need his approval, guidance or intercession.

2. Second, the staff director can do much to make top management aware of the part they must play in helping the staff to produce worthwhile results. One of these steps that only top management can take is to key up the whole organization to reach decisions and take action. There is nothing more destructive to the morale of systems analysts than to have his good work get bogged down by the uncertainty, indifference, or vacillation of operating personnel.

Creative People Must Feel Secure

The final motivating force is security — a factor important to all of us. And the only way that creative people can feel secure at times like these is to know that they are part of an organization which can prove its worth. That emphasizes the need for a dynamic program producing tangible results and to strong support both from top management and operating personnel. That carries us back to the problem and techniques of gaining acceptance.

These then are the steps to developing a competent systems staff: (1) more scientific selection; (2) continuous, planned training related to the staff's real needs; and (3) motivation in terms of participation, recognition, job satisfaction and security.

Development of competent systems personnel is a long-range program and it can't be expected to run on a continuing basis by itself. Results can be attained only if we keep everlastingly at it as a regular part of day-to-day operations.

SOMETHING TO LOOK AT

(Continued from page 14)

Yet how often that very thing can and does happen in the course of a visual presentation. The audience whose interest is allowed to dwindle will leave the room, psychologically at least, if it can not do so physically. .

To maintain that all-important interest, the visual aid must rely on a large bag of tricks. These tricks are tried, tested and proved; they won't double-cross you if you use them correctly.

Take the trick of size variation. One of the most eye-catching ads I ever saw was built around a picture of a common housefly. He was about fifty sizes larger than life, however, and was a very formidable looking brute. You use exactly the same trick when you place a form in an opaque projector and demonstrate how it's filled out, larger than life.

Color Is the Keyword in Preparing Visual Aids

Then there's the device of contrast. A highway sign uses it. A gorgeous blonde uses it when she dabs on her eye shadow. And so do you use it when you print the president's name in HEAVY BLACK LETTERS on an organization chart.

And we can't forget color. A Hollywood picture in Technicolor is said to gross about 50% more money than an equivalent movie in black-and-white. Just because it's in color. No other reason; people simply like color that much better than they like black-and-white. In your charts and forms and lay-outs you use color in a thousand different ways. Color is one of the most powerful allies of the visual aid, whether it's in the form of a poster or merely a couple of red and yellow blackboard chalks.

Add to these basics the additional elements of rapid variation in what is seen, repetition of what is seen and movement of what is seen, and you have quite a bag of tricks indeed. The technique we're perfecting lies more than anything in knowing the proper blending of these tricks. The blend depends completely on the purpose of the visual aid.

Familiarize Yourself with the Use of Visual Aids

You want to show someone how to reroute his paper flow? Well, you don't make a $20,000 movie to do it. You want to explain several complex filing systems to a nation-wide audience? Well, you don't hit the road with a slate and crayon in your hand to do that, either. Many of the past visual-aids blunders have been along this line. Blackboards have been sent to do motion pictures' errands, and vice versa. But this is happening less and less often.

In one breath I could enumerate the visual aids that are on tap for the systems and procedures field. But it would take much longer than this whole National Systems Meeting lasts to begin to cover the proper applications of each aid in your field. The best advice I know is simply this: Familiarize yourselves with the aids themselves. Play with them; get to know them as you know your own car. They are the "causes". Then when, in your work, you wish to produce a specific "effect", you will know, and almost automatically, how to cause it. That sounds like a gross over-simplification. It is, but when you start to complicate the point, you suddenly find yourself recommending books on advanced audio-visual principles—and Angstrom units. So I'll leave it simple. If you know what a blackboard, a flip-flop, a poster, a slidefilm can and cannot do, you'll be able easily to reason back from the effect you desire and select its proper cause without hesitation. It's a matter of knowing that a hammer drives nails and does not saw wood.

The simplest visual aid of all is, of course, an object per se—a rubber mouse, for example. And then comes the symbol, which can be as simple as a picture of a pencil or as complex as the mathematical sign for infinity. After that, I would place a manual, which combines pictures and symbols with text. Then, perhaps, and proceeding in the direction of more visual complexity, comes the chart, which is nothing more than a graphic expression of the relationships between symbols. Somewhere in here the poster enters, and for the first time you may be striving for an emotional as well as an intellectual impact.

You yourself first get really into the act when you start using flash cards, flip-flops and blackboards, in about that order of complexity.

And now the new element of projection appears for the first time; you magnify what you're doing, bathe it in light and cast it on a screen for all to see, larger than life. The simplest form of projection is expressed in the opaque projector, the "Magic Lantern" of 1950. Now you're getting somewhere! And with an overhead projector you go even further, and the element of transparency, of film, appears. Already you've come a long way from the blackboard, for now you can remain seated with your audience or trainees and write over your own shoulder! No more loss of contact by having to turn your back on the group.

Mechanized Mediums Play Important Role

Now we enter the realm of film proper. With slides or a silent slidefilm that does not have frame captions, you are still in the act. You deliver the patter, you are Mr. Audio and your projector is Mr. Video. But not for long.

Once the sound slidefilm enters the scene, you're just the man who threads the film, sets a needle in a

groove and flicks a switch. But does this mean you are no longer in the act? Of course not! It simply means that the act is being carried temporarily by a machine that can show it better than you can and say it better than you can. But the machine hasn't yet been invented that will conduct the post-showing discussion or answer the post-showing questions. So don't fight this complete mechanization of the visual aid just because it temporarily commands the show. You're still the driver, and without you the car won't even start, let alone get you to your destination and back.

Next we come to a hybrid, the motion slide film. You're into movies now, but the pictures don't move. Yet the impression of movement is achieved because the camera itself has moved, and you can produce optical effects—fades, wipes, dissolves and so on. The motion slide film is better than a slidefilm and worse than a motion picture, yet it has its specialized uses where it is just right. Meaning it's the proper cause for the specific effect (and sometimes for the limited budget that can't quite buy a movie but wants more than a slidefilm).

Finally, comes the climax—the motion picture. You use it when the effect you desire calls for shooting the works—the audio-visual works, that is! Here's the whole bag of tricks in one medium—color, movement, variation of scene, sound. It's just about as far as you can go—unless you want to put on a pair of stereoptic spectacles and go into three dimensions, or play upon your audience's noses by tossing perfume into the air conditioning system at the crucial moment! I'm afraid the audio-visual aid will never be invented that will bring Hedy Lamarr off the screen and into your waiting arms. But after all, how real can a medium get?

I've tried to give you a thumbnail sketch of the gamut of visual aids, from simple objects, as such, to the sound, color motion picture. I attempted to demonstrate the power of the visual aid with nothing more than a rubber mouse, which I presume you have not yet forgotten. Now let's rush to the top end of the gamut. I refer, of course, to a motion picture.

In my judgment, the motion picture you are about to see is the visual aid at the peak of its powers. And what's even better, it's about a system and procedure. It uses every trick in the bag to put its message across. And in my opinion, it succeeds very well. This does not necessarily mean that the Research Institute of America endorses Remington-Rand's filing systems. I personally don't know anything about filing systems. All I'm saying is that, as a visual presentation of filing systems, of the problems they can solve and the human relations they involve, this motion picture is just about tops. It even carries an emotional impact, which I suppose is not surprising, as you would know far better than I that systems and procedures is not a completely unemotional vocation!

TAPPING THE RESERVOIR OF EMPLOYEE'S EXPERIENCE

(Continued from page 5)

1. Get the wholehearted cooperation of the entire supervisory force.
2. Recognize supervisors' suggestions in some manner.
3. Be sure that decisions of the suggestion committee are absolutely impartial.
4. Pay fair awards and err on the side of liberality in case of doubt.
5. Publicize problems on which management is thinking, and ask for ideas on these problems.
6. Explain to employees how awards are determined.
7. Eliminate unnecessary delays in answering suggestions and making decisions.
8. Follow up adopted suggestions to make sure that they are actually put into effect.
9. Conduct a continuous advertising program that keeps the suggestion system constantly before the employees.
10. Secure the active interest of the chief executive.

Criticism or suggestions in a company must be made and considered on certain assumptions, one of which is that the company is made up of both management and employees. Suggestions made and considered upon that basis are proper, no matter how far-fetched they may seem to be.

Common Touch Needed To Put Program Across

The consideration of suggestions, not upon that assumption, but upon the assumption that the company is one thing and the employees another, is wrong. A suggestion program operated with the implication that the company itself is something outside its employees, or opposed to the idea that they should in any way share in the management of the company, is not a real suggestion program and no amount of lofty and ambiguous comments by management can make it so.

It has been said that the common touch is lost with the acquisition of authority. Perhaps the trouble is that managements who cannot run a suggestion program successfully just have a little smoke in their eyes—they have sub-consciously lost that same feeling of participation which they are so anxious to have their employees feel.

RELATIONSHIP OF FORMS CONTROL TO SYSTEMS CONTROL

An Informative Discussion About Those Pieces of Paper We Call "Forms"

(A paper presented at the Third Annual National Systems Meeting)

By F. M. KNOX

MY subject has to do with Forms Control and Design. Believe it or not, it is a different subject than systems and procedures control. But it is important that we discuss it because it is closely and irrevocably tied into systems and procedures control.

Let's start out by finding out just what the difference is between the two subjects.

Forms are the pieces of paper that constitute the tools of the clerical operations. Systems and procedures are the chain upon which these forms and clerical operations are strung to accomplish an objective. Forms control has to do with the pieces of paper -- systems and procedures control has to do with the sequence of operations whereby the objective is attained.

Forms control is a first cousin to systems and procedures control but it is NOT the same thing. They rub shoulders but still remain different things. They bleed into one another but the doing of one never actually accomplishes the other.

For the purpose of our discussion here, forms control must be defined in terms of its relationship to systems and procedures control. And that can best be done by first seeing exactly what forms are in the average organization.

Let's look at the forms of several organizations where complete and careful collections have been made of every form in the company.

Company "A" is a medium sized manufacturing company with about 750 employees, three plants and 336 forms in active use.

It is most interesting to note that 78% of these forms are used in annual quantities of 1,000 or less each. Only 30 forms are used in quantities of 5,000 or more annually and only 6 are used in quantities of 25,000 or more each.

Sort of "small potatoes", isn't it? 262 out of 336 forms used in quantities of 1,000 or fewer per year. Those forms are hardly worth spending much time on, are they? But, they account for most of the clerical expense in the company because most of the bigger usage forms are mechanized.

Company "B" is a larger manufacturing company with about 2,000 employees, one major plant and a nation-wide sales and warehousing organization. It uses 994 printed forms (the office duplicated forms usages were not known).

83½% of these forms are used in quantities of less than 5,000 per year each, while only 3½% of them, or 34, are used in annual quantities of 50,000 or more. 65% of them do not even reach an annual usage of 2,500. More small potatoes?

Company "C" is a large bank—a service type organization where paper work is actually the factory operation. This bank had 2501 forms of all types after a forms control program had eliminated all the non-essential forms.

1,004, or 40% of these forms, had an average annual usage of only 234 copies each, mostly office duplicated forms.

412 forms, or 16%, were used in average annual quantities of only 1,145, making a total of 56% of the forms used in quantities of about a thousand or less per year.

Only 161 forms, or 6½, were used annually in quantities of as much as 20,000 each.

Now, where does all this lead us?

It leads us to the inescapable fact that the very large majority of all the forms in any business organization are used in such small quantities that they look like "peanut stuff"to those who have more important things to do and that includes just about everybody in the company.

Mr. F. M. KNOX heads his own company in the control and simplification of forms and procedures. Formation of his own company followed eighteen years of background in this field. During the War he served as Director of Publications in the Executive Office of the Secretary of the Navy with the rank of Commander. Mr. Knox is the author of the books "The How and Why of Payroll Records" and the "Standard Guide to Planned Printing" as well as numerous magazine articles.

It leads us to the fact that a systems and procedures control group cannot hope to achieve control over all the company's forms. It does not have, and it never will have, the time to study and correct all this vast horde of small usage forms.

Let's look again at that larger manufacturing company, where only 3½% or 34 of the forms were used in really large quantities. That 3½% included all the tabulating cards, all the continuous strip forms and all the carbon interleaved unit-sets. It included the sales order, the warehouse order, the purchase order, the payroll checks, the time cards, the invoice, the factory work order, the receiving report—and that's naming only eight or ten of the thirty-four largest usage forms in the company.

How long would it take a systems and procedures group to study those 34 forms and the systems attendant upon their use? A long, long time. And, in the meantime, what would be happening to the 96½% of the company's forms not included in that group? Some of them would naturally be drawn into the studies being made of the few but, when all is said and done, not very many of them. Probably 80% of the total would never be touched.

Handwritten Forms Are of Paramount Importance

The average systems and procedures group, if my observation from twenty years experience is any criterion, is thrown into a situation in the company where they have to become so busy putting out fires that they have no time to institute a fire prevention program.

If anyone at this point is saying to himself, "It may be so in other companies but it is not so in mine!"—let him go back home and collect every form in his company—all the office duplicated forms, the so-called temporary forms, the small usage forms that he has never seen before. He'll be surprised when he counts them and finds how many there are that he never saw before. It is not at all unusual to find twice as many forms as any one thought existed.

But, you say, if 3½% of the forms include all the most important forms in the company, aren't they the ones which should be studied? Aren't we doing what should be done in concentrating on them? Yes, of course, if you're talking about systems and procedures control. But we are talking here about forms control, and working on 3½% or 6½% or even 30% of the company's forms does not constitute forms control.

Keep in mind, also, that the biggest usage forms in the company will, in all probability, be highly mechanized whereas all the small forms—the "peanut stuff"—are hand filled and hand used and they will, therefore, account for a surprisingly large amount of the total office expense.

Speeding up operations, getting rid of bottle-necks, and smoothing out work flow are the results to be expected of systems and procedures studies but any real and worthwhile reduction of the overall clerical expense can come about only by the elimination of all unnecessary forms and control over the myriads of small usage forms. Even if you eliminate ten or fifteen clerks by putting some operation on punch card accounting, you will have worked with only a small proportion of your entire clerical force.

Let's remember, also, that every time you order, or when anyone in your organization orders, a form, whether it be 500 or 5,000 or 50,000 copies, you automatically ear-mark a proportionate amount of clerical expense.

Procedures studies will take care of the 50,000-a-year forms but it requires forms control to take care of the 500-a-year forms.

Eight Factors Are to Be Considered in Forms Control Program

So much for what forms are and where they fit into the systems and procedures pattern. Let's now assume that we recognize the need for, and are setting out to install, a forms control program. What do we do first?

First, we segregate the factors of the forms control problem. There are eight such factors, as follows:—

1. The AUTHORSHIP of the form. When a person picks up a piece of blank paper and, with a ruler and pencil, starts to draw lines and words on that paper, leaving blank spaces in which someone will later insert data or information, he or she becomes the author of a form. Every form has an original author whether or not those persons ever think of themselves in that light or not.

Obviously, forms control must take into account the interests of these persons who originally start the ball rolling from which will ultimately come the printed form. The authors of the forms must, in turn, be made to understand the clerical expense implication when they pick up that paper and pencil and ruler and start to draw the form.

They must not only furnish an adequate rough sketch of the form that is wanted, they must furnish supplemental data on how the form is to be used, its relation to other forms, the routing and life tenure of its various parts, annual usage and many other facts pertinent to the finished design and production, and use of the form.

2. The DESIGN of the form. The lines and marks and words which the author puts on the piece of blank paper constitute the first, or rough, design of the form. Usually it is more or less crude but it should contain the information necessary to the making of the finished design of the form.

Since the pencilled design constitutes the guide to the printer for the setting of the type and the printing of the form, and since the finished printed design governs the efficiency with which the form will be used in the clerical operations, it is most important that the finished design be made as carefully as possible and with all the production factors as well as the use-factors of the form in mind.

Now, the fact is that the average author of a form is, or may be, an expert in almost anything except forms designing. He may be an expert accountant, factory manager, stockroom supervisor, purchasing agent, legal counsel, general executive or any one of a dozen other things but the chances are that he is not an expert forms designer. Even those who, today, are working on methods and procedures in the office can usually lay little claim to any formal training in the scientific designing of forms.

An effective forms control program must, therefore, provide the necessary design standards relating to the physical production or manufacture of the form as well as to the efficiency and economy of the form in clerical use.

3. The SPECIFICATION of the form. In spite of the fact that the purchasers of forms force the printers to do much of their work, not only in a rush, but also in a "by-guess and by-gosh" manner, or that printers over the years have become so used to producing forms without specifications that they consider it as normal practice—there is simply no justification for this method of planning or buying forms. True, the authors, who may spend days, weeks or even months in working out the design of their form, usually want the purchasing department to get the forms overnight and there is theoretically no time for the writing of specifications. In all too many cases this defect is paid for dearly by finding out later that the forms have not been printed the way the author wanted.

It is not unusual to find an entire lot of forms thrown away and not used simply because insufficient thought was given to the design requirements or because specifications were not given to the printer when the form was purchased.

The forms control program must take a realistic view of the purchasing agent's buying problems and the printer's manufacturing problem and provide them with all the specifications necessary for an intelligent performance of their jobs.

4. The PURCHASE of the form. As indicated above, the purchasing department is strictly limited in the efficiency with which it buys forms by the design and specifications given them by the author or designer. Certainly no printer can bid intelligently on a form unless the design and specifications are complete and intelligible. If they are not, the purchasing department may find that it has bids based on widely divergent conceptions of what is wanted.

Since the purchasing of forms is outside the scope of this discussion, it will not be gone into here other than to stress the fact that it is one of the basic factors of the forms problem and the forms control program must integrate the purchasing function with the complete picture or the control will be incomplete.

5. The MANUFACTURE of the form. After the form has been purchased or requisitioned it must be manufactured by the printer and it is this step which is so completely governed by the design and the specifications or, in too many cases, the absence of them.

Areas of Forms Control

There are two general areas of forms manufacture to be considered in forms control; first, the production of forms on any one of the many kinds of printing equipment and, second, their production on office duplicating equipment. In either case the necessity for control is important but it is probably even more important in the case of office duplicating equipment than in the case of the printing equipment. In the latter case, particularly if the job is given to a commercial printer, the chances are that some degree of care will have been taken in the preparation of the copy, if for no other reason than that it goes through the hands of the purchasing agent who will undoubtedly have some degree of consciousness of the necessity therefor.

On the other hand, in the case of office duplicating equipment, even that degree of control may be lacking in all too many cases. It is not unusual for a company, going seriously into a forms control program, to find anywhere from 50% to 100% more forms than anyone thought it had, and most of such forms will be found to have been produced on office duplicating equipment.

Whether the form is to be produced on printing presses or office duplicating equipment it must be realized that its production constitutes a manufacturing problem, and that the manufacturing problem can be adequately handled only by means of correctly prepared designs and specifications. If the forms control program takes care of these things the printer's manufacturing problem will be solved or greatly simplified and the purchaser will gain in the economy of the purchase price.

6. The STORAGE and DISTRIBUTION of forms. After the form has been produced it must be stored and distributed to those who will use it. In some cases the number of forms produced is so small that the entire lot may be delivered to the using department but in most cases the quantity is too large for that and separate storage space must be provided. This brings up the question of the stationery stockroom and its management. If the form is to be used widely throughout the organization the matter of its physical distribution enters into the question. There is small satisfaction in having a form, even if it is the best designed form in the world, if it is not where it should be when it is wanted.

7. The USE of the form. When you stop to consider, NOTHING HAPPENS in your office except to, or by means of, a piece of paper. Pieces of paper—forms, that is—are the production line of clerical labor.

Forms are the common denominator of office production. Look at it this way. You can take all of your office personnel, line them up and look at them, analyze them, aptitude-test them, give them a raise, put them on incentive, but you still don't know whether they are duplicating each other's efforts or doing unnecessary work.

Or you can take all your office machines, see what makes them tick, become experts on machine systems, put in more machines – but you still don't know whether duplication or unnecessary work is being performed.

Or you can rearrange your office layout, put in new furniture, create more space—but you still don't know whether duplication or unnecessary work exists.

The common denominator of office production is forms. The finished goods of your clerical labor, using machines and equipment, are forms with information written on them.

Forms are the evidence of WHAT is accomplished in your office. To the experienced analyst, they not only tell what is being done but also a great deal about HOW it is being done.

This field of the use of forms is the field of the systems and procedures study group. It is the all important field but it should have a forms control program to help it along and to back it up. The forms control program, as we shall see later, can be of invaluable assistance to the systems and procedures group in doing their work. And we mustn't forget that the 80% of small usage forms must be controlled as well as the 20% of relatively large usage forms.

8. The DISPOSAL of the form. Records have a way of remaining around long after their primary use has been fulfilled. Some are required to be kept by law for a certain number of years, others are important to the company as matters of record, others just stay around because nobody bothered to get rid of them.

Whether they are kept in some sort of record storage place, or whether they are photographed by one of the micro-photographic methods or whether they are thrown away, the matter should not be left to chance or guess work on the part of an unqualified person. A regular schedule of disposal should be established and followed as a part of the overall forms control system.

The disposal time factor should be determined at the time the form is originated. The control unit should see that a disposal schedule is made up for each form on this basis. Otherwise the file cases and storage areas may accumulate an unbelievable stock of used forms, many of them long past their useful life but still occupying valuable space.

These 8 factors, then, must be taken into consideration when setting up a forms control program; authorship, design, specification, purchase, manufacture, storage and distribution, use, and disposal.

Integrate these factors and you will have the foundation for an effective control plan; leave any one of them to chance and the program will be deficient to just that degree.

Sample of Every Company Form Is Required for Forms Control Program

There are five basic steps in the setting up of a forms control program as follows:

1. The establishment of forms control as a company policy.
2. The collection of samples of all forms in use in the company.
3. The building of a Functional Index to the forms, supplemented by a numerical work file.
4. The integration of the forms control program in the company organization.
5. The scientific design of the company's forms.

1. The establishment of forms control as a company policy. To be successful, forms control must be established as a policy of the company and the notice to that effect must spring from the policy making level of the company's management. All departments must be made aware of the program and must be made to understand what it will mean to them and, more important, what they are supposed to do to help make it work.

(Continued on page 39)

SIMPLIFYING THE CLERICAL OPERATION

Intensive Training Is Essential to Work Simplification

(A paper presented at the Third Annual National Systems Meeting)

By C. J. BERG

ANY discussion of the application of Work Simplification to large scale office operations should be prefaced with a description of training methods employed. Training in Work Simplification is ideally centralized in the Management Engineering function as a natural adjunct to its methods function. It is offered to both Staff and Section Personnel. Experience has shown that Staff personnel should be given an intensive course. In these sessions they would be trained in the use of tools permitting a broad scope, i.e.: Work Distribution, Process Charts, Principles of Work place layout, Operation Charts and Man & Machine Charts.

First line supervisors, or Section personnel, should be offered an appreciation course confined to the basic tools and ideas for application of Work Simplification at the level of the individual worker, i.e.: Introduction to Work Simplification, Principles of Work place layout and Operation Charts.

As to training methods, experimentation with lectures versus the conference method, has shown the latter to be more productive. Group participation results in a better understanding of the principles and techniques. Considerable stress should be placed on improvement by observation, as the first step in Work Simplification. Films are an excellent media for stimulating class discussions of improvement in existing methods. Here is an example of such films: "Work Simplification Adaptable to Clerical Operations" (Film was shown on screen).

You will observe that emphasis is placed upon work place layout in most of the examples shown in the film. In other words, stress is placed upon making work easier, simpler and shortening the time required for its performance.

Demonstrations are also an effective way of presenting the course, for example; when we speak of making work easier, here is what we mean. (Demonstrated sorting into ten piles on table top and gathering, versus sorting into notched rack and picking up ten piles with one finger).

Such demonstrations are designed to clearly illustrate and develop an interest in principles of good work place layout, of which, in our opinion, some seven are applicable to clerical work. These are divided into those affecting the work place (Film on "Principles for the Work place," was shown).

1. Arrange work within proper working area
   a. As nearly in front of the clerk as practical
   b. Within easy reach
   c. At definite, fixed points
   d. To permit the best sequence of operations
2. Provide good conditions for posture and sight

Examples of providing good conditions for posture and sight are:

1. Rack for 3" x 5" cards
2. Quadrant rack
3. Music stand rack

Principles affecting the human body are:

1. Use rhythmic motions and employ these muscles that naturally coordinate
2. Use both hands, if possible, and move them
   a. Simultaneously
   b. Symmetrically
   c. In opposite directions

Examples:

1. Music is often used in teaching touch typing and IBM key punching to establish a rhythm

Finally we find a set of principles affecting tools and equipment.

1. Combine and pre-position.
2. Design to distribute finger load in accordance with the capacity inherent in each finger; to cause least body movement.

Mr. BERG after ten years of experience in finance involving control of branch office operations joined Metropolitan as an administrative analyst in 1942. After service as a management engineer with the Navy Department during World War II he returned to the company to assist in the development of supervisory training in management techniques. He is a special lecturer at New York University, his Alma Mater, and has also been loaned as a consultant to several Federal Agencies.

3. Design to relieve hands from work that can be done as well by the feet or other parts of the body.

Examples:

1. Rubber stamp with separate ink pad versus self-inking stamp.
2. Librarian pencil
3. Ink stand and pen
4. Simplified keyboard
5. Foot and knee pedals on transcribing and other office equipment

Case problems which simulate actual conditions encountered in clerical work are effective. Class practice on actual projects in the Company are extremely effective in convincing the participants of the value of these techniques.

As to follow-up, there is no central organization keeping track of progress. This could be left to the various departments engaged in Work Simplification.

The application of Work Simplification has proven very productive in the ideas and improvements developed by Company employees. Incidentally, a Suggestion System provides a natural outlet for the ideas developed through the use of Work Simplification Techniques.

Here are some results taken from a number of charts chosen at random:

1. "Results of using Process Charts."
2. "Results of using Operation Charts."

The central methods organization should act not only as trainer, but continue to offer a consulting service to assist any employees who ask for such help in analyzing their particular problems.

GAINING ACCEPTANCE OF NEW IDEAS

(Continued from page 18)

People want to be kept informed of what is going on. It gives them a feeling of being on the inside. This applies at all organizational levels, particularly to things that are planned. Under our decentralized approach this is not too difficult to accomplish.

This year, we went a step further by preparing a special report for the Board of Directors. Every department contributed to this report. It covered the major accomplishments of the entire Company during the preceding year and plans for 1951.

In this report, Staff and Line Departments were given full credit for all accomplishments, including improvements in administration. Copies of the report were furnished to all department heads so that they could see other departments' accomplishments, as well as their own.

This report was well received throughout the Company, and the Board passed a resolution expressing appreciation for the thorough and professional job performed by officers and personnel of the Company. Copies of the resolution were supplied to all departments so that they knew that the Board of Directors recognized the fine work they had done.

This report was not only evidence of acceptance by management, but it provided an additional incentive to all department heads to continue to make improvements, as they realized that their work was appreciated.

Acceptance—An Evolutionary Process

Acceptance, attitudes and reactions are conditioned by similar factors. In all organizations a certain percentage of individuals take a positive view to new ideas, and a certain percentage negative. Usually the negative group is in the minority. Where the initial reaction at Enka may have been negative, it changed materially during the past year. From our experience, the evolutionary process of change can be summarized as follows:

1. At first, there are doubts and suspicions, and some cautious resistance based largely on misinterpretation, lack of understanding and fear.
2. Then, there is a gradual understanding as to the need, and certain realization of value to be gained.
3. This attitude then expanded into a desire to participate, and finally, into acceptance.
4. In many instances, we have gone beyond acceptance to insistence of new ideas. When this is achieved throughout the organization, we will have then accomplished our full acceptance goal.

In conclusion, I would like to relate a little incident, which makes me feel more than any other factor I have mentioned before, that we have gained acceptance. It happened at a cocktail party last Sunday. After telling one of our Vice Presidents that I intended to talk here today on the acceptance of new ideas at American Enka, he said, "Jack, you certainly picked an easy subject to talk about, 'cause everybody in the Enka organization wanted all these things all the time."

At Enka, our major concern now is finding time to do the things we want to accomplish—not acceptance of new ideas.

ORGANIZATION AND PERSONNEL STUDIES POINT THE WAY

How Psychological Techniques Help Build a Stronger Organization

(A paper presented at the Third Annual National Systems Meeting)

By W. A. GILL

ORGANIZATION and personnel studies point the way to numerous things. Such studies, sometimes called surveys, inspections, investigations or audits, usually are undertaken (1) to obtain detailed data; (2) to measure the effectiveness of current procedures and organizational assignments; (3) to probe for systems and procedures problems and the causes of those problems; (4) to determine the extent and degree of compliance with law, policy, regulations and standard procedures; and (5) to establish a firm basis of fact for the making of management's decisions. So, organization and personnel studies point the way to the answers needed by management; they point the way to both strong and weak links in procedures flow and organization. These are the usual—the obvious—things.

If we allow them to do so, organization and personnel studies also can point the way to situations or conditions which the systems and procedures man will wish to bring to management's attention or will himself attempt to adjust. Conditions or situations like these, for example:

1. A lack of appreciation of the philosophy that the improvement of office systems and procedures is the responsibility of every person in the organization. No matter what his title may be or the degree of authority he possesses; no matter whether he is an expert or novice; no matter how busy he may be in his regular assignment—every employee is responsible to his organization for doing his part in assuring that the systems and procedures of the organization are (a) operated as designed and (b) simplified, modernized or otherwise improved as needed. When an organization or personnel study reveals a lack of appreciation of this basic philosophy it points the way to a deficiency in management.

2. Encroachment upon the private domain of the workers. As an outgrowth of human relations studies, it has been indicated that systems and procedures men sometimes go too far in their studies of detailed operations. There are areas of activity in office (clerical) operations where reliance should be placed upon the worker to establish his own procedures. The contents of his desk, and the way they are arranged, can best be left to the worker's discretion. The fact that he keeps a few card records and memorandum books may be a matter of interest but these items should not be the subject of detailed scrutiny or criticism during a study. If we are to adopt the very wise philosophy of encouraging initiative among employees, it is therefore unwise to invade the "inner sanctums" if such can possibly be avoided.

3. Lack of know-how in identifying and solving methods problems of minor importance. Even if the rank-and-file employees are fully aware of their methods responsibilities, organization and personnel studies may point the way to the need for equipping workers with an understanding of some of the simple techniques and practices for identifying and solving many of the methods problems they face, some of which they may have to adjust themselves. The ways of identifying, analyzing and solving problems in procedures and systems are not so highly technical, magic or otherwise difficult that the average office or clerical worker cannot assimilate enough of them to be able better to help himself to at least temporary relief until the services of an expert can be secured.

In summary, the foregoing points add up to one very worthwhile conclusion: The methods (systems

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Mr. GILL has just founded the Institute for Methods Improvement after a number of years of work in the Federal Government, most recently with the National Resources Board. After a career in banking, commercial financing and marketing he has been, for the past fifteen years, engaged primarily in management engineering work. Mr. Gill has been a special instructor at several universities and with the U.S. Department of Agriculture.

and procedures) of any organization are a "family affair" and when organization and personnel studies disclose broken links in the chain which binds the family together, repairs usually are possible through an honest and humble acceptance of these philosophies and through education.

CLOSE-UPS AND LONG-SHOTS

(Continued from page 3)

One major problem was clear. Records must be set-up so as to reflect all income and expense on a BY SONG basis. This was necessary due to writer participation. With this thought as a nucleus we began the developing of systems and procedures to cover the operation of the Walt Disney Music Company.

Invoices Originate From New York

Again, let's truck in for a close-up of one phase of the Music Company procedures. Invoices and shipments to customers originate from our New York office. There are six copies made of each invoice. The original and number two copy (remittance copy) go to the customer at the same time the sheet music is shipped. Numbers three and four are retained by the New York office, filed alphabetically and numerically. Number five and six are forwarded to the head office at Burbank, California. Upon receipt of copies five and six, verification of extensions, unit price, footing, etc. is made. Number six copy is forwarded to accounts receivable where the invoice is processed via the use of Elliott-Fisher machines. The invoice is automatically reflected in the customer's current account as well as listed on the customer's month ending statement. The number six copy is then filed alphabetically by customer.

Copy number five is routed through the cost and tabulating section. Here all information, such as name and address of customer, invoice number, date of invoice, customer number, quantity shipped, song title number, arrangement number, unit price and amount is audited and punched into an I.B.M. card. This card is subsequently utilized in preparing the monthly detail sales register. This monthly detail sales register reflects all information BY SONG. Once each quarter a consolidated tabulated report is prepared which reflects total income less returns, by individual songs, and it is from this report that the author's royalty statements are calculated and prepared.

There is also an accounts receivable I.B.M. card prepared from this number five invoice. A tab run, listing receivables, summarized by customer, is prepared monthly and, in effect, becomes the subsidiary accounts receivable ledger to the general records of the company.

Other Phases of Music Publishing are Considered

As yet, we have referred only to sheet music sales in the music publishing business. There are other sources of income such as; records, electrical transcriptions and synchronization. The income from records is the number one source of mechanical revenue.

Each recording company submits statements either quarterly or semi-annually. Monthly, all royalty reported is summarized BY SONG (this is necessary again due to authors' participation) and forwarded to the cost and tabulating sections for coding and punching into I.B.M. cards. Such income is tabulated and summarized BY SONG each month and again is the source of preparing entries to be reflected in the general records of the company.

This tabulated report is also consolidated BY SONG at the end of each quarter. This quarterly mechanical report is utilized along with the quarterly sheet music report for calculating and preparing author's quarterly royalty statements.

Growth of Organization Is Challenge to Methods Men

We are continually reviewing the procedures of the Music Company, particularly that portion covering sales, with the thought of eventually utilizing such information from a sales statistical viewpoint—this type of information becoming increasingly necessary as the volume increases. Presently, we are exploring the possibility of using an I.B.M. Cardatype machine. This machine presents some interesting possibilities. If, after our volume has increased to the point where such a machine could be economically justified, we plan to install such a machine in the billing department in our New York office. Master files of cards would provide information required on each purchaser and such cards could be used for preparing invoices as well as shipping tags originating from our New York office. At the time the invoices and shipping tags are prepared the machine would also produce a perforated paper tape recording all the information listed on the invoice. This tape would be mailed to the Burbank office and the information on the tape would be converted to punched cards. This would eliminate the key punching now necessary, as well as the typing required in the New York office in putting such basic information as customer's name, address, customer number, etc. on the invoice.

The organizing of a new company offers unlimited opportunity for the methods man. We here at Disney are enjoying the challenge in not only planning for the future but reviewing those efforts being tested daily.

RELATIONSHIP OF FORMS CONTROL TO SYSTEMS CONTROL

(Continued from page 34)

In other words, the first step toward forms control is to WANT to control them. Top management must come to realize the profit potential in clerical cost reduction and that, since forms are the tools of all clerical operations, the control of forms is the first step toward the accomplishment of those important savings.

The interest of top management in the problem becomes evident on a real basis only with the appointment of someone to handle the problem; announcing to the organization the policy of management toward forms control; and providing the control personnel with the tools and techniques necessary for control.

2. The collection of samples of all forms in use in the company. The second step is to gather together samples of every form in order that the forms control unit will know what it is that they are working with. This means forms that are bought, forms that are produced on office duplicating equipment, carbon-interleaved forms, flat forms, letterheads, envelopes, tags—everything.

Let me assure you that you can't collect your forms by getting them from your stationery stockroom. You'll miss as much as 50% of the overall total because of office reproduced forms which are not stored in the stockroom.

A forms collection letter to every department manager in the office and in the plant, in the home office and in every branch location will bring in forms you never dreamed existed. In the collection letter you should explain in detail what you mean by a form, the purpose of the collection, indicate that at this point you do not want any details as to how the forms are used, explain that you do want every form used in that department regardless of origin or disposition, ask for an estimate of annual usage, and, finally, ask for about 5 copies of each form.

3. The building of a Functional Index and Numerical Work File of the forms collected. There are certain questions which inevitably come up in any attempt to study or standardize forms. No forms control program can be successful unless there is at hand a complete set of samples of all the forms, analyzed and classified in some such way as to furnish the correct, positive and quick answers to these questions.

Some of the major questions which arise are as follows:

a. If someone wants a form and does not know the number or title, or if the form bears no number or title, how do we find it?

b. If a form is to be studied and redesigned, how do we know whether or not there are other forms elsewhere in the organization doing the same thing and which could possibly be combined with the one being studied?

c. When procedures or methods are being studied, how can we instantly lay our hands on every piece of paper used in that procedure or method?

d. When a form is standardized, how can we guarantee that no one else will, at sometime in the future, introduce another form which may duplicate or overlap this one in what it does?

These are only four of the major questions that arise. There are others, some of which may be peculiar to the nature of the organization in which the forms are used and some of which are naturally inherent in office forms control. None of these questions can be answered by reference solely to a straight numerical file, important as that kind of work file may be. The answers require an additional arrangement of forms whereby they can be located quickly and surely by some means other than the usual identification, i.e., form numbers and titles.

Examine, Analyze and Classify Forms

This means that all the samples of forms which have been collected from the using departments must be examined, analyzed and classified in some sort of working files for the everyday operation of the program. This is a first step and, unless it is done wisely and well, the program will suffer accordingly.

The Numerical Work File. Little needs to be said about this file because it is so obvious as to need little discussion. With the collection of forms completed from the using departments, they should be placed into file folders in numerical order as a permanent work file. Each form gets a folder with the number of the form entered on the tab of the file. All extra samples and all subsequent work papers pertaining to that form should be kept in this file.

The Functional Index. The need for this type of classification is often recognized and attempted but, unfortunately, there has never been any readily available guide for its construction and as a result the classifications, more often than not, fail to provide the answers to the questions that must be answered in any successful forms control program.

With an appreciable volume of forms, even further modification is used; i.e., function. Typical functions are: To Acknowledge, To Agree, To Apply, To Authorize, To Cancel, To Certify, etc., etc.

Now we have a classification of forms by subject, modified by operation or condition, modified by function.

For instance, take a form titled "Requisition". First of all the subject of the form is not requisition. It is either Material or Supplies, Employee, Cash, etc., which is the subject of the requisition. If the requisition is for an employee, the form would be filed as follows: Subject, Employee; Operation, Employment of: and Function, To request. The requisition requests the employment of an employee. Or if the requisition was for supplies, the form would be classified as follows: Material-Supplies, Issuance of, To Request.

Experience proves the validity and effectiveness of this functional classification of forms and it can be of invaluable assistance to the systems and procedures men because the subjects, operations and functions of the forms coincide exactly with those of the systems and procedures. The paper used in any given procedure can be quickly and easily located in this Index as a first step to charting that procedure.

4. The integration of the Forms Control Program with the Company organization. If forms control is to be effective at all, it must be done on a level which will encompass the inter-departmental aspect of paper work. Otherwise it cannot be effective in any but the most casual and superficial way. To try to control forms in one department alone may be a laudable aim but in practice it will very quickly run up against this inter-departmental aspect of paper work and, without the control being extended to those departments, it may fail through lack of cooperation.

Also, to change a form in one department is almost sure to affect someone else's work and if the change is made without full knowledge and cooperation of the other department the flow of paper work will probably be fouled and, instead of gaining efficiency, the result will be confusion.

Forms Control Is Staff Function

It follows, therefore, that forms control must be established in the company as a staff function, finding its correct place in the staff-line structure of the organization. The exact location of the control over forms may vary but logic dictates that it be at some place having a major concern with general office and clerical expense as represented by the paper work of the company. This is usually in the office of the controller.

It is hardly necessary to say that this staff-line relationship, more than any other thing, will dictate the success or failure of the forms control unit. It is not an easy relationship to build and maintain. It may run afoul of personal and departmental jealousies and prejudices as well as interdepartmental politics and it will survive on a creative and positive basis only through the most skillful management.

5. Provision for the scientific designing of forms. Since the entire forms control program finds its focal point in the designing of forms in such a manner as to create greater clerical efficiency and to reduce office expense it hardly seems necessary to say that management must provide the forms control unit with the means for bringing about that kind of design.

The most important point is to realize that good forms design does not happen accidentally. Forms are good only because they are designed that way and they are designed well only because someone knew how to do it.

Forms Designer Must Have Experience

The mere reading of a book is not sufficient to make a person into an expert forms designer. Training and experience are necessary adjuncts to the information. Therefore, management will err in expecting just anyone to become an expert forms designer merely because an organizational unit was created for the purpose of controlling forms and the personnel of that unit was handed a book to read.

A course in elements of bookkeeping does not create an accountant and the reading of a book on the designing of forms does not create a forms control man. Both are necessary prerequisites to the final goal but both are only first steps.

In conclusion, we have covered three important points. First, the forms control problem is not synonymous with the systems and procedures problem but is concerned with all the forms in the company, most of which are small in usage and usually ignored by everyone else. Second, there are eight factors to the forms control problem and that all of them must be brought under control before the problem can be called solved. Elimination of any one of these eight factors will mean a partial program instead of a complete program. Third, there are five steps to go through in the establishment of a forms control program and that none of them can be omitted if the program is to be complete or even successful.

Let's hope that each one of you, when you go back to your jobs, will look with a new respect, if not a new suspicion, on each of those office duplicated forms that you see floating about and that you will not rest until you have established a forms control program that subjects each and every one of them to the same kind of scrutiny that you are now giving to the major procedures of your company. It will pay dividends both in the cost of your forms and your general clerical expense.

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